

**FEDERAL FINANCIAL
SUPPORT OF BUSINESS**

*Carnegie Library
IE References*

The Congress of the United States
Congressional Budget Office

NOTES

Unless otherwise indicated, all years referred to in this study are fiscal years.

Numbers in the text and tables may not add to totals because of rounding.

Cover: photo at top left is ©The Stock Market/Gabe Palmer, 1994; photos at top right and bottom are courtesy of the U.S. Department of Agriculture.

Preface

The federal government supports private business activities through a variety of direct spending programs, credit subsidies, and tax incentives. The ongoing debate about the appropriate federal role in supporting business is hampered by the lack of data and analysis of current federal policies. A previous Congressional Budget Office (CBO) study in this area, *Federal Support of U.S. Business*, is now more than 10 years old and has been rendered obsolete by major legislation and the passage of time. At the request of the former Chairman of the Senate Committee on the Budget, Chairman Sasser, CBO has updated that earlier report. In keeping with CBO's mandate to provide nonpartisan analysis, this study makes no recommendations.

Philip Webre of CBO's Natural Resources and Commerce Division wrote the report under the supervision of Jan Paul Acton and Elliot Schwartz. The Natural and Physical Resources Cost Estimating Unit and the Tax Analysis Division made substantial contributions in both estimates and content. The author also appreciates the comments of George Eads, Robert Hartman, Rosemary Marcuss, William Randolph, Pearl Richardson, Frank Sammartino, and Aaron Zeisler.

Sherry Snyder edited the manuscript, and Christian Spoor provided editorial assistance. Donna Wood, Marlies Dunson, and William Boswell typed the many drafts. Kathryn Quaitrone prepared the study for publication.

June E. O'Neill
Director

July 1995

Contents

	SUMMARY	ix
ONE	INTRODUCTION	1
	Determining What Constitutes Business Support / Business Support Versus "Corporate Welfare" 3	
TWO	ISSUES IN DEFINING AND MEASURING FEDERAL SUPPORT OF BUSINESS	7
	Spending Programs 7	
	Credit Programs 9	
	Tax Expenditures 10	
	Federal Activities That Are Not Counted as Business Support 12	
THREE	FEDERAL ACTIVITIES THAT SUPPORT BUSINESS	17
	Tax Expenditures 17	
	Spending Programs 22	
	Credit Programs 26	
FOUR	DISTRIBUTION OF FEDERAL SUPPORT AMONG BUSINESS SECTORS	29
	Support Targeted Toward a Specific Business Sector 29	
	Tax Expenditures That Benefit More Than One Sector 36	
	Targeted Support in Its Industrial Context 38	
	Effects of Tax Support on Investment by Businesses 40	
	Technology Programs 41	

APPENDIXES

- A Estimated Tax Expenditures That
 Support Business 45
- B Estimated Program Outlays That
 Support Business 49
- C Estimated Credit Activity and Outlays
 That Support Business 53

TABLES

S-1.	Selected Federal Tax Expenditures That Support Business, 1995	x
S-2.	Federal Expenditures and Credit Activity That Support Business, 1995	xi
1.	Federal Expenditures and Credit Activity That Support Business, 1995-1999	18
2.	Selected Federal Tax Expenditures That Support Business, 1995-1999	19
3.	Selected Federal Spending Programs That Support Business, 1984 and 1995	22
4.	Selected Federal Credit Programs That Support Business, 1984 and 1995	27
5.	Targeted Federal Support for Agriculture	30
6.	Targeted Federal Support for Manufacturing	31
7.	Targeted Federal Support for Mining	32
8.	Targeted Federal Support for Utilities and Sanitary Services	33
9.	Targeted Federal Support for Transportation	34
10.	Targeted Federal Support for Finance, Insurance, and Real Estate	35
11.	Illustrative Allocation of Multisector Tax Expenditures by Sector	37
12.	Federal Business Support in an Industrial Context	39
13.	Marginal Effective Corporate Tax Rates by Type of Asset	40
14.	Marginal Effective Corporate Tax Rates by Sector	41
15.	Federal Outlays for Technology Commercialization Programs in 1995 by Budget Function	41

A-1.	Estimated Tax Expenditures by Budget Function	46
B-1.	Estimated Outlays for Spending Programs by Budget Function	50
C-1.	Estimated Obligations, Commitments, and Outlays for Credit Programs by Budget Function	54

Summary

The federal government extends financial support to business as part of its efforts to promote private enterprise. That support takes three main forms: spending programs, credit programs, and favorable tax treatment. The most visible form of support consists of spending programs related to business interests, such as the programs of the Agricultural Research Service. Through credit programs, federal agencies such as the Export-Import Bank provide loans and loan guarantees to individual businesses. The largest category of support comes through special provisions of the tax code designed to encourage commercial activity--so-called tax expenditures. The favorable treatment of corporate research and development is one example.

The Congressional Budget Office (CBO) estimates that spending programs to promote commerce and business will cost \$27.9 billion in 1995 and that credit programs will cost \$2.2 billion. The provision of the tax code that yields the largest amount of direct support for business--depreciation of capital assets in excess of the alternative depreciation system--is estimated to cost \$32.2 billion in lost revenue.

Federal activities that support business distribute their aid unevenly among business sectors, both in absolute terms and relative to the size of the sector. The agricultural sector receives by far the most support in dollar terms--\$14.7 billion including outlays from both spending and credit programs. It also receives the most support relative to its size; through credit and spending programs, the agricultural sector receives a level of support equal to 11 percent of its contribution to gross domestic product (GDP). The utilities sector is second, receiving federal support equal to 2 percent of its contribution to GDP. All other sectors receive amounts less than 0.6 percent.

What Constitutes Business Support?

Federal agencies provide business support through many activities. The list of activities CBO compiled for this study includes only those with a central goal of promoting commerce and industry.

CBO assumes nothing about the value, effectiveness, or success of any programs or provisions on this list. Many of them are cost-effective and contribute to a public goal, which is their intended purpose. Others may be less effective and may, through poor design or control, transfer more resources than are justified. Furthermore, CBO does not assume that the businesses that receive federal financial support are necessarily the ultimate beneficiaries. For example, federal payments to air carriers for flying into airports of underserved communities can benefit both the community and the air carrier.

This tally of federal activities that support business cannot be compared with analyses of "corporate welfare." The largest difference between CBO's study and those studies is the purpose of drawing up the list. Other analysts attempt to create a tally of corporate welfare--programs that they claim transfer money from the federal government to businesses but accomplish no other public purpose--in order to reduce such spending. CBO's tally has no such purpose. CBO set out to determine how much the federal government is spending on business support, not whether the government should be spending funds on business support or how such spending should be reduced.

Tax Expenditures

The federal government dispenses the bulk of its support for business through special provisions of the tax code. The largest--accelerated depreciation of capital

Summary Table 1.
Selected Federal Tax Expenditures That Support Business, 1995 (In billions of dollars)

Tax Provision	1995
Depreciation of Capital Assets in Excess of Alternative Depreciation System	32.2
Reduced Rates on First \$10 Million of Corporate Taxable Income	3.9
Tax Credit for Corporations with Income from U.S. Possessions (Section 936 income)	3.7
Exception to the Source Rule for the Sale of Inventory Property	3.5
Tax Credit for Low-Income Housing	2.2
Special Treatment of Life Insurance Companies' Reserves	2.1
Expensing of Research and Development Costs	2.0
Deduction of Unpaid Property Loss Reserves for Property and Casually Insurance Companies	1.6
Expensing of up to \$17,500 of Depreciable Business Property	1.5
Exclusion of Income of Foreign Sales Corporations	1.4

SOURCE: Congressional Budget Office based on Joint Committee on Taxation, *Estimates of Federal Tax Expenditures for Fiscal Years 1995-1999*, prepared for the Committee on Ways and Means and the Committee on Finance (November 9, 1994).

assets--provides incentives to increase investment. Because of interactions between different provisions of the tax code, the level of federal support does not equal the arithmetic sum of revenue losses from individual tax provisions. Consequently, this report does not provide a total. Nonetheless, the arithmetic sum of the business-oriented tax preferences is twice the size of the business-oriented spending and credit programs put together. Although that sum is not a measure of revenue losses, it suggests the magnitude of the support delivered through the tax system.

The federal government supports business with more than 60 tax preferences. Fourteen individual provisions each cost the Treasury \$1 billion or more in lost revenue annually (the largest are shown in Summary Table 1). The estimates of revenue losses are not necessarily equal to the amount of funds that would be gained by eliminating any of the tax provisions.

Spending Programs

Spending programs are the second largest channel of federal support. They will provide an estimated \$27.9 billion in 1995, with five program areas accounting for two-thirds of that total (see Summary Table 2).

- o The Commodity Credit Corporation accounts for an estimated \$7.9 billion through its programs of price supports for agricultural commodities and other programs for stabilizing farm income.
- o The National Institutes of Health's applied and clinical research in health-related fields totals \$3.7 billion.
- o The Department of Energy's research and development into new energy technologies, such as solar and nuclear energy, adds \$3.4 billion to this inventory of federal support.
- o Farm-related soil conservation efforts through the Conservation Reserve Program cost \$1.9 billion.

- o Development of technology with possible civilian applications at the Department of Defense consumes \$1.8 billion.

Credit Programs

CBO estimates that credit programs to promote business and commerce will cost the government \$2.2 billion in 1995 (see Summary Table 2). That figure represents both the costs of administering loans and loan guarantees and the outlays for subsidizing low interest rates and defaults. Loans and loan guaran-

tees for business support in 1995 will total an estimated \$7.3 billion and \$33.2 billion, respectively. The largest credit programs, measured by their subsidy and administrative costs, are those of the Export-Import Bank, the Small Business Administration, the Commodity Credit Corporation, and the Agricultural Credit Insurance Fund; they account for over 80 percent of the cost of all business-oriented credit programs.

Programs and Tax Provisions Excluded from the Study

This inventory includes only federal activities with a stated goal of promoting commerce and business. Thus, it excludes programs that may significantly affect different sectors of the economy but that the Congress undertakes for purposes other than promoting business. The programs and efforts that CBO did not include in its tally fall into several categories:

- o Macroeconomic policy,
- o Benefits to individuals,
- o Federal procurement and sales,
- o Nonindustrial research and development, and
- o Social and physical infrastructure.

The costs of the excluded programs are much greater than those included, which account for 2 percent of federal outlays. Programs to benefit individuals that have significant effects on the medical economy, for example, include Medicare (\$178 billion in 1995 outlays) and Medicaid (\$89 billion in 1995 outlays). Estimates of the Department of Defense's procurement, which clearly encourages the aerospace and other industries, total \$55 billion in 1995. Similarly, in the research area, the inventory includes less than \$2 billion of the estimated \$35 billion the Department of Defense will spend on research, because that research is primarily intended to develop new weapon systems.

Summary Table 2.
Federal Expenditures and Credit Activity That Support Business, 1995 (In billions of dollars)

	1995
Program Outlays	
Spending Programs	
Commodity Credit Corporation	7.9
Applied Biomedical Research at the National Institutes of Health	3.7
Technology Development at the Department of Energy	3.4
Conservation Reserve Program	1.9
Dual-Use Technology at the Department of Defense	1.8
Other	8.2
Total	27.9
Credit Programs (Subsidy and administrative costs)*	2.2
Credit Activity*	
Direct Loan Obligations	7.3
Loan Guarantee Commitments	33.2

SOURCE: Congressional Budget Office.

- o The Export-Import Bank, the Small Business Administration, the Commodity Credit Corporation, and the Agricultural Credit Insurance Fund account for most of the credit activity and outlays.

Many of the tax expenditures that CBO excludes also have substantial effects on businesses, often much larger than the effects of the tax preferences included here. The most notable of those expenditures is the deductibility of interest payments on home mortgages, which stimulates the demand for housing and which the Joint Committee on Taxation estimates will cost the Treasury \$54 billion in 1995. The study also excludes employer contributions for medical insurance premiums and medical care even

though such payments increase the demand for medical insurance and medical care and will reduce tax revenues by an estimated \$46 billion in 1995. In this analysis, CBO does not include the tax expenditures resulting from the preferential treatment accorded to long-term capital gains, since that treatment lowers the cost of capital throughout the economy and does not apply uniquely to gains from investments in business.

Introduction

Federal activities to aid business represent both a claim on federal budgetary resources and, in the case of several industrial sectors, a sizable share of their contribution to the economy. This study details those programs and places their support in its industrial and budgetary context.

Although they are presented here as business support programs, these programs were not conceived as parts of a coherent whole. Rather, they result from separate initiatives taken at different times to support a variety of legislative objectives. Some are designed to aid specific sectors of the economy such as agriculture, some to aid smaller firms, and others to reward specific commercial activities such as research and development or investment.

Although the Congress and the Administration have never considered these programs together, treating them as a group devoted to a specific purpose—promoting commerce and industry—provides a useful perspective. In that sense, this study is similar to analyses of federal spending on research and development that treat federal programs housed in different agencies and different budget functions as a single group.¹

This analysis updates a Congressional Budget Office (CBO) study, *Federal Support of U.S. Business*, that appeared in January 1984. That study has been rendered obsolete both by major legislation, including tax and credit reform and reform of the

budget process, and by the passage of time. Though no longer current, the earlier study can serve as a benchmark for assessing how policies and priorities have changed.

Determining What Constitutes Business Support

The analysis of federal support for business depends largely on the quality of the criteria for including and excluding programs. Every government spending program or tax expenditure increases the demand for the output of some individual business, but including the entire federal budget in the category of business support would not provide meaningful information. To determine what the federal government is doing to promote commerce and industry in a deliberate way, an analysis should include only programs whose central goal is to promote business.

Although many Congressional actions promote industry and commerce, CBO has included in this catalog only those that assist business financially. That criterion eliminates programs that have only collateral, and possibly unintended, consequences for business. Nevertheless, deciding whether a program or a provision of the tax code was intended to promote business and industry remains difficult and subject to reasoned disagreement.

The difference between inclusion and exclusion, however, is largely a matter of convention rather than

1. The *Analytical Perspectives* volume of the *Budget of the United States Government* has several such analyses that cut across the federal budget according to different analytic criteria.

economic logic. No federal program has a single purpose; rather, most serve multiple goals, and many programs that were excluded have consequences that are similar to those of programs that were included. CBO decided that to be included, programs would have to meet a test of reasonableness—that is, in CBO's judgment, most policy analysts would agree that the primary purpose of the program or tax provision was to promote commerce and industry. (Such definitional issues are not unique to this study but often arise when analysts try to divide the federal budget according to some analytic, rather than legal or institutional, criterion.)

Any attempt to define where business support ends and support of some other legislative goal begins raises questions about methods and assumptions. This study does not claim to resolve those issues definitively; CBO has made judgments in categorizing programs, and other analysts might disagree with those decisions. Consequently, this analysis should be thought of as illustrating general trends and policies rather than as defining the role, or even the absolute amount, of federal aid to business in the economy. The remainder of this chapter and the next chapter explain both the general rules CBO used to decide which programs would be included and the definitional and measurement issues involved.

How the Federal Government Promotes Business

Federal efforts to promote commerce and industry fall into three general categories.

- o *Infrastructure support.* The federal government provides or defines the physical and social infrastructure as well as the institutional "rules of the game," such as patent laws and regulation of markets and contracts, all of which are needed if businesses are to thrive.
- o *Indirect financial support.* The economy, but not the federal government, bears the cost of aiding a business or industry, as in the case of protective tariffs or quotas.

- o *Federal financial support.* The federal assistance has a direct effect on the federal budget, as in the case of direct subsidies, credit programs, or tax expenditures.

This analysis is solely concerned with the last type of assistance—direct financial support. It defines such support as that for which the federal government receives no equivalent direct benefit in return. Rather, the aid is designed to affect prices and costs in the private sector so as to encourage some activities in preference to others.

This study generally defines businesses as commercial operations of corporations, partnerships, and individuals in any industry. For example, individuals own some of the farms benefiting from agricultural support and corporations own others. If an individual is engaged in a business activity, then for purposes of this study, programs and provisions to support him or her in that endeavor are classified as business support. That definition also includes the commercial operations of nonprofit corporations.

The definition excludes the noncommercial actions of corporations, partnerships, and individuals—for example, tax preferences related to corporate contributions to charity. The commercial actions of individuals and economic organizations are difficult to disentangle from other aspects of their lives. These distinctions, however, have been made elsewhere. For example, tax law does not typically refer to all investments, such as education or preventive health care, as business investments. Similarly, not all actions that individuals take to improve their welfare should be referred to as commercial activities.

Mechanisms for Providing Federal Financial Support

The federal government uses three types of programs to provide direct financial support.

- o *Spending programs* include research and development programs that support industry goals, direct subsidies, provision of information for a special purpose, and insurance programs.

- o *Credit programs* include loans and loan guarantees.
- o *Tax expenditures*—special tax concessions designed to encourage a particular activity—include credits against current taxes as well as the deferral or exclusion of or deductions from income on which taxes would have been levied.

Perspectives from Which to View Business Support

Business support can be viewed from the perspective of both the federal budget and the business sector that receives it. Although presenting both perspectives in this study inevitably results in some duplication, it affords the opportunity to highlight different aspects of the same set of programs.

Business Support Versus "Corporate Welfare"

Some policymakers have recently suggested that society reexamine government programs that provide "corporate welfare"—that is, programs that they claim transfer money from the federal government to businesses but accomplish no other public purpose.² CBO's list of federal programs that support business cannot be compared with such analyses. The largest difference between CBO's study and studies of corporate welfare is the purpose of drawing up the list. The latter studies attempt to create a tally of corporate welfare in order to reduce that type of spending. CBO instead sets out to determine how much the federal government is spending on business support; it did not try to determine whether the government

should be spending funds on business support or how to reduce such spending.

CBO has not analyzed or made assumptions about the value, effectiveness, or efficiency of any program. This study can best be described as a catalog of federal payments to corporations and individuals for engaging in specified commercial activities. Unlike most studies of corporate welfare, it is not a deficit reduction "hit list." It draws no conclusions as to the social value of such payments, nor does it systematically discuss their success in fostering the desired activities. This study is, however, a starting place that identifies some of the programs that policymakers and analysts may want to examine further.

Moreover, CBO does not assume that the businesses receiving federal financial support are necessarily the ultimate beneficiaries. If federal research and development (R&D) at the National Institutes of Health helps to create new technologies—for example, new drugs—that enhance the lives of U.S. taxpayers, how are analysts to allocate the benefits of that program between drug companies and consumers? Similarly, federal payments to air carriers for flying into airports of underserved communities benefit both the community and the air carrier.

Although CBO's study of federal support for business has a different perspective and motivation than studies of corporate welfare, a large degree of overlap is inevitable. This section compares several such studies, including those by Stephen Moore and Dean Stansel of the Cato Institute, Robert J. Shapiro of the Progressive Policy Institute, and Scott A. Hodge of the Heritage Foundation.³

Each of the tallies varies substantially from the others in what it includes and, consequently, in the total amount of funding it reports for such programs. Each study also has a different methodology: the one by Moore and Stansel includes all the funding in a program; the others (Shapiro and Hodge) include

2. In November, Secretary of Labor Robert Reich raised the issue in a speech before the Democratic Policy Council. See Kirk Victor, "Takin' on the Bacon," *National Journal* (May 6, 1995). Since then, a variety of organizations, speaking from a variety of political viewpoints, have taken up the call. They include the Cato Institute, the Progressive Policy Institute, and the Heritage Foundation. For a useful compendium of programs, see also Edward Knight and Vivian Catherine Jones, *Federal Programs That Could Financially Benefit Business Enterprises*, CRS Report 95-535E (Congressional Research Service, April 18, 1995).

3. Stephen Moore and Dean Stansel, *Ending Corporate Welfare As We Know It* (Washington, D.C.: Cato Institute, May 12, 1995); Robert J. Shapiro, *On-and-Invest: A Budget Strategy for the New Economy* (Washington, D.C.: Progressive Policy Institute, March 1995); Scott A. Hodge, ed., "Rolling Back Government: A Budget Plan to Rebuild America" (unpublished draft, Heritage Foundation, Washington, D.C., no date).

only the savings that would arise from specified cuts. Consequently, the numbers are not comparable. Moore and Stansel recommend cutting programs that they claim total \$87 billion in 1995. Shapiro recommends reductions in spending programs that he estimates will total \$114 billion over five years and tax proposals that will generate a similar amount of additional revenue. Hodge's proposals for reducing federal business programs total \$11 billion in 1996, out of a total savings in all areas of the budget of \$67 billion. (His proposed budget would start in 1996.)

Generally, CBO's tally is the most conservative, mainly because it includes only programs with a stated business focus whereas the other studies include programs that may help business but have no such stated focus. All four tallies include largely the same set of programs in the areas of agriculture, energy, and technology. Indeed, most of the spending programs in CBO's tally are in those three areas.

Infrastructure accounts for the biggest quantitative difference in spending programs between CBO's analysis and the others. Those analyses include federal spending devoted to providing infrastructure and the "rules of the game" discussed earlier. Agencies mentioned by one or more of those analysts include the Army Corps of Engineers, the Federal Aviation Administration, the Coast Guard, the National Weather Service, and the Federal Transit Administration. In general, the analysts argue that the fees those agencies charge are not sufficient to cover their costs and that the agencies therefore provide support for business.

Although CBO agrees that those activities promote business, the issue is whether each infrastructure program as a whole supports business in preference to its other users. As will be discussed in Chapter 2, CBO excluded most spending on infrastructure from its tally because infrastructure benefits not only business but also everyone in society. Consequently, separating the business function from other functions of that spending is difficult. Rather than separate out

the spending, which would be less, CBO chose to exclude it more consistently from its tally.

Differences with Moore and Stansel

Unlike CBO, Moore and Stansel focused their analysis on spending programs, including only one tax expenditure in their tally—the tax provisions related to alcohol fuels. They also included many programs that CBO has classified as other than business support. For example, their tally included \$9.5 billion of weapons development and procurement by the Department of Defense (DoD). As will be discussed in Chapter 2, CBO excluded federal procurement from its tally.

Moore and Stansel included the Department of Labor's training and employment services. Although such programs benefit business, they also benefit the entire economy generally and the recipients of the training in particular. CBO therefore classified those programs as benefits to the workers involved, not as business support.

Moore and Stansel included all basic R&D performed by university researchers and in fields such as high-energy physics, whose connections to business are tenuous. CBO included only technology-oriented R&D. Moore and Stansel also included funding for the cleanup of Department of Energy (DOE) facilities, but CBO did not.

Last, Moore and Stansel double-counted (and in some cases triple-counted) some federal technology programs. For example, the High Performance Computing and Communications program was counted once as itself; its components were counted again as part of the Civilian Technology Investment program, DoD's dual-use technology initiatives, or DOE's R&D activities. CBO counted the major components of this program individually within their respective agency.

Differences with Shapiro

Shapiro includes several programs and provisions that CBO does not. He includes the space station, which is primarily not business support; mass transit subsidies, even though the government runs most mass transit in the United States; and several propos-

als for changing the federal payments to universities, which also have no relationship to business.

With regard to tax expenditures, Shapiro's and CBO's tallies of business support are quite similar, although CBO is more conservative. Shapiro includes a proposal to end the deduction of business entertainment as a business subsidy. Since spending by businesses to entertain clients is not conventionally considered a tax expenditure, CBO has not included it in its tally.

Differences with Hodge

Hodge does not limit his study to support of business but discusses many areas of the budget. Therefore, his study may be best compared with CBO's *Reduc-*

ing the Deficit: Spending and Revenue Options rather than with this volume.

Hodge does not simply tally programs but proposes changing many of them in specified ways over a specified number of years. His estimates therefore count potential savings and so are not comparable with CBO's estimates, which count current levels of outlays adjusted for inflation.

Shapiro's and Hodge's lists of programs that support business overlap with CBO's. Their lists are narrower in that they include only programs they wish to end; the lists are broader in that they include programs that CBO classified as part of infrastructure or, like the mass transit subsidies, that do not provide aid to business.

Issues in Defining and Measuring Federal Support of Business

This study starts with the entire federal budget and narrows it down to an analytically manageable set of programs to determine the support the federal government provides to business. The methodological challenge is to decide which programs have as a central goal the support of commercial activity and which programs affect business incidentally.

Any analysis of federal financial efforts to promote commerce and industry must make distinctions that are somewhat arbitrary. This chapter discusses those distinctions, addresses analytic issues pertaining to measuring federal support, and points out the federal programs and activities that have been excluded.

Federal financial support can take three budgetary forms:

- o Funds spent directly for selected assistance,
- o Provision of credit or guarantees for private loans, and
- o Selective tax reduction.

This study's estimates of that support assume that 1995 programs continue unchanged in inflation-adjusted terms over the 1996-1999 period. The estimates of expenditures from spending and credit programs are those of the Congressional Budget Office's Budget Analysis Division, and estimates of revenue losses from tax expenditures come from the Joint

Committee on Taxation. Neither set of estimates reflects actions taken in 1995.

Spending Programs

The most straightforward way to support a business or industry is to award money directly or spend it directly on an industry's behalf. (Individual spending programs and their budgetary effects are discussed more fully in Chapter 3.)

Types of Direct Spending Programs

Spending programs generally fall into one of three categories: direct payments, statistical and other basic technical information, and the commercialization of technology. Most of the problems of measurement and definition are encountered in the last category.

Direct Payments. Federal agencies provide direct support to businesses through cash payments. That method is especially prominent in agriculture: farms can receive money for a variety of crops or agricultural practices, such as withholding certain lands from cultivation. Such direct payments are unrelated to procurement and are rare in other program areas.

Technical Information. Federal agencies provide market information to businesses and their clients in the hope of promoting commerce. By increasing the

amount of information in the marketplace, federal agencies make transactions easier and reduce uncertainty to sellers and buyers alike. Subjects on which information is disseminated include developments in foreign markets, surveys of natural resources in the United States leading to commercial exploitation, and publication of commercial standards through the Cooperative Extension Service or the National Institute of Standards and Technology.

The list does not include Bureau of the Census and other information programs that have applications beyond business activities. For example, the current tally excludes the Geological Survey, which was in the 1984 tally, because much of its funding is spent on monitoring water quality. Outlays for the Geological Survey are projected to total only \$611 million in 1995, so excluding them should not alter the study's conclusions.

Technology Commercialization. Supporting the development of new commercial technologies is a service that the government can perform for business. This study includes research and development programs whose goal is not knowledge per se but rather the production of technology that will be incorporated in commercial products. Thus, the Congressional Budget Office has included some agencies' R&D budgets in their entirety because the overall purpose of the R&D is to support business. For example, the National Institute of Standards and Technology devotes its entire R&D budget to producing standards of measurement for business and industry. In other instances, however, only a portion of an agency's R&D budget has been included because a clearly identifiable portion was for noncommercial purposes. For example, the tally includes roughly a dozen programs of the National Aeronautics and Space Administration (NASA) and a handful of initiatives by the National Science Foundation (NSF). Although other NASA and NSF programs may ultimately have commercial benefits, CBO judged those programs as not specifically intended to aid business.

The R&D programs included in the study target their money in various ways. Some programs spend funds on business's behalf, such as those that pay university or government scientists to develop a new technology that industry may eventually exploit.

Other programs may pay a company to develop a technology that the federal agency providing the funds will then use in its own products. For example, some of the defense R&D programs pay firms to develop products that they can sell both to the Department of Defense and to civilian consumers.

Issues of Definition and Measurement

Two agencies with large R&D budgets—the Department of Defense and the National Institutes of Health—were almost completely excluded from CBO's 1984 study. Their inclusion this time raises issues of both definition and measurement.

Issues of Definition. The defense programs included in the tally are mainly those that promote technologies that have both commercial and defense applications—the so-called dual-use programs. The Technology Reinvestment Project, which helps defense contractors to develop commercial versions of their military technology, typifies the explicit commercial focus of many of DoD's technology development programs in the post-Cold War period.

That broader inclusion of military programs is a substantial change from CBO's 1984 study. Even though the commercial effects of military technology programs were well understood in 1984, they were not targeted so explicitly toward the commercial market. Rather, most observers justified and viewed the programs on the basis of their contribution to DoD's military mission. Recent policy changes have altered the justification of those programs, prompting their inclusion in this volume.

Issues of Measurement. The R&D programs of the National Institutes of Health (NIH) presented problems of classification and measurement. Many organizations involved in medicine are not businesses but rather nonprofit or governmental organizations. However, not-for-profit corporations have economic interests that may cause them to behave in a manner similar to for-profit entities. With the understanding that it is the activity more than the organizational form that is being promoted, CBO included in its tally the portion of NIH's budget devoted to applied research.

One reason that this classification matters is that the NIH budget is so large, with more than \$11 billion in outlays projected for 1995. Consequently, simply including or excluding the whole amount seems analytically sterile, especially given NIH's role in developing health care technology and the U.S. health care industry. According to NIH, over the past 10 years, 57 percent of its research spending has been for basic research.¹ Assuming that another 10 percent was for administrative and other costs, roughly 33 percent of the budget was for applied research and development that might directly benefit health care providers.

Nonetheless, ample room exists for disagreeing with both CBO's decision to include NIH and the method CBO used to determine what percentage of the R&D budget should be counted as business support. In 1984, for example, CBO excluded NIH from its tally, concluding that its budget was primarily for health spending, not business support. Other researchers with access to the same publicly available budget documents may wish to draw their own lines of demarcation between the NIH programs that directly support business and those that do not.

Credit Programs

Federal agencies provide credit in two primary ways: loans and loan guarantees. They can make loans directly to borrowers, who are obligated by contract to repay their loans, or they can issue guarantees that obligate the government to repay a private lender all or part of a loan if the borrower defaults.

Loan programs help industries in a variety of ways. In some instances, such as the loans the Farmers Home Administration provides for farm operations and ownership, the federal government provides credit to businesses that might not be able to obtain it elsewhere. Other credit programs provide interest rate subsidies that reduce the borrowing rate below the prevailing market rate and sometimes below the federal government's cost of borrowing. For exam-

ple, the Rural Electrification and Telephone Loans program provides loans to rural electric cooperatives and telephone companies at interest rates as low as 5 percent.

Many federal agencies also provide more generous terms than would private creditors. The Export-Import Bank, for example, permits much longer periods for repayment than would commercial banks for similar loans. Federal agencies often exercise greater forbearance in foreclosing businesses that are in arrears, and they may carry loans beyond the point of clear default.

Similarly, federal loan guarantees provide private businesses with several benefits. The guarantees permit lenders to reduce the risk premiums on their loan rates. In some cases, the guarantees provide businesses with access to credit that they might not otherwise have.

Loans are more expensive to the government initially, whereas loan guarantees allow the government to leverage its funds for greater effect. Conceptually, however, both loans and guarantees can be reduced to a common factor--their subsidy value expressed in terms of the discounted present value of the funds committed.²

Federal loan programs have three elements for budgetary purposes:

- o The financial subsidy, which is the portion of the cash disbursement that the government does not expect to recover through repayment;
- o The unsubsidized portion, which is the present value of the expected stream of repayments; and
- o Administrative costs.³

2. For a more complete discussion of the budgetary treatment of credit programs, see Congressional Budget Office, *Budgeting for Administrative Costs Under Credit Reform* (January 1992).
3. Although some federal loan programs do not have a budgetary subsidy--that is, no difference exists between the federal cost of borrowing and the expected repayments by the borrowers--they may have an economic subsidy. The federal government can borrow at lower rates than most beneficiaries of federal loan programs. Federal programs that allow those beneficiaries to borrow at rates lower than they could have on the open market are, in effect, providing an economic subsidy.

1. National Institutes of Health, *NIH Data Book, 1993* (Bethesda, Md.: NIH, 1993), pp. 7 and 12.

The Federal Credit Reform Act of 1990 mandates that the discounted present value of the expected future costs of interest subsidies and loan defaults associated with federal credit programs be charged when credit is extended rather than when costs are incurred.⁴ CBO uses that value as the annual cost of credit subsidies, an approach that has one drawback: whereas the cost of interest rate subsidies and defaults is measured in present-value terms, the rest of the budget is measured on a cash flow basis. Nevertheless, the present value captures more accurately the real value of the economic resources that the federal government commits.

The subsidy value does not currently include administrative costs for purposes of budgeting. Those costs are simply accounted for in the year they are incurred, the same as other administrative costs of federal agencies. No way of accounting for administrative costs is without problems. One can argue that many of those costs constitute part of the subsidy and should be included in the initial calculation of the subsidy. The administrative costs associated with spending programs, however, are appropriated annually even when the program may take several years to spend out. This study follows the annual appropriation cycle and counts such costs in the year incurred.

Despite the shortcomings of the current method of accounting for the costs of credit programs, it allows much better comparison with spending programs—the main purpose of credit reform—and gives policymakers a clearer sense of the resources they are allocating with those programs. It does so by providing more accurate and timely measures of the long-term costs of credit programs in the budget.

Tax Expenditures

The term "tax expenditures" refers to revenue losses that arise from provisions of the tax code extending selective or special tax relief to particular taxpayers. To be classified as a tax expenditure that supports

business, a provision must fulfill two criteria: it must be a special exemption from a general tax rule, and it must provide a subsidy. As with spending and credit programs, those special tax provisions are intentionally designed to influence taxpayers' decisions—that is, to alter the allocation of resources in the economy from that which would have otherwise prevailed.⁵

Tax expenditures are entitlements in that any person or firm that meets the requirements of the tax code is eligible for the special treatment. The revenue losses from a provision in any year will depend on the number of eligible taxpayers and their tax liabilities. The revenue loss can vary widely from one year to another even if provisions of law governing tax preferences remain unchanged. That is because tax expenditures are sensitive to both economic activity and general tax rates.

This study includes in its tally those tax expenditures granted to taxpayers who engage in commercial or business-related activities. The taxpayers may be corporations or individuals. As noted in Chapter 1, the determining factor for inclusion in this list is the purpose of the provision of the tax code, not who the beneficiaries are. Thus, a tax provision that is intended to encourage some business activity would be included even if corporations were not eligible.

Although this study includes corporate tax expenditures as providing support to business, some analysts might raise objections to doing so. Because dividends are often taxed twice—once as part of corporate net income and again as part of individual income when they are actually paid out—the corporate income tax as a whole might be thought of as "negative" business support. According to that argument, tax expenditures do not provide positive support but instead compensate for the double taxation of corporate profits.

But not all corporate equity is subject to double taxation. For example, dividends on stock paid to

4. Present value is the value now of future income or future costs. The present value of money in the future is calculated by discounting it at a rate of interest equivalent to the rate at which it could be invested.

5. For recent discussions of the theoretical and measurement issues regarding tax expenditures, see Senate Committee on the Budget, *Tax Expenditures: Compendium of Background Material on Individual Provisions*, S. Rep. 103-101, prepared by the Congressional Research Service (December 1994); and General Accounting Office, *Tax Policy: Tax Expenditures Deserve More Scrutiny*, GAO/OGD/AIMD-94-122 (June 1994).

charitable, educational, and other nonprofit institutions are not subject to income tax. Those income flows are difficult to disentangle, but this study follows convention and counts corporate tax expenditures as support in their own right.

Types of Tax Expenditures

The Congressional Budget Impoundment and Control Act of 1974 defines tax expenditures as revenue losses that arise from:

- o Exclusions, exemptions, or deductions that reduce taxable income. For example, the interest earned on many industrial development bonds issued by state and local governments is excluded from the taxable income of the bond's purchasers.
- o Preferential rates applied to a portion of income--most notably, the reduced rates on the first \$10 million of corporate taxable income.
- o Credits, which are subtracted directly from tax liabilities as ordinarily computed. The credit for increasing spending on research and experimentation is one example.
- o Deferral of taxes either by delaying recognition of income or by accelerating the use of future years' deductions, as with accelerated depreciation of buildings and equipment. Tax deferral provides the equivalent of an interest-free loan from the government to the taxpayer.

The relative value of each type of tax expenditure will vary with the taxpayer, his or her marginal rate, and other deductions for which he or she is eligible.

This study divides tax expenditures into two categories: those that are targeted toward a specific sector and those that affect multiple sectors. Some tax expenditures directly benefit businesses in only one industry or sector. For example, special treatment of the depletion of oil and gas fields initially benefits only firms and individuals engaged in that activity. (How those initial recipients then spread the benefits throughout the economy is beyond the scope of this

study.) Other provisions provide tax relief to people and corporations in more than one sector. For example, rapid depreciation of capital assets benefits investment, albeit unevenly, in many sectors.

Issues of Definition

The definition of tax expenditures in current law is based on the distinction between the basic structural features of an income tax and the provisions that are exceptions to them.⁶ The basic features are generally referred to as the normal tax rules. Those rules, which define the income that is to be taxed, include the general rate schedules and exemption levels, the general rules defining who is subject to tax and what accounting period should be used, and all deductions for the costs of earning income. Since the normal rules are an integral part of the income tax, they are not considered to be tax expenditures; rather, they form the standard against which tax expenditures are selected and measured. A separate corporate income tax is considered part of the normal structure.

Tax analysts generally agree on which provisions constitute tax expenditures, with few exceptions. This analysis uses previous classifications from CBO and the Joint Committee on Taxation.

Issues of Measurement

Following the definition of tax expenditures in the Congressional Budget Act of 1974, this study uses revenue losses as the basis for measuring them. The Joint Committee on Taxation estimates the revenue loss from each tax expenditure by comparing the revenue raised under current law with the revenue that would be raised if the specified provision did not exist, assuming that taxpayers' behavior and all other tax provisions remained the same.

Three issues are of particular concern in evaluating tax expenditures that support business. First, any

6. For a more detailed discussion of the definition and measurement issues related to tax expenditures, see Congressional Budget Office, *The Effects of Tax Reform on Tax Expenditures* (March 1988), pp. 1-9.

totals derived by adding together the estimated revenue losses associated with individual provisions are of questionable value. Most analysts maintain that adding up the effects of individual provisions is not useful for policy purposes because of interactions among the provisions: repealing one tax provision may change the revenue loss attributable to another.⁷ That problem is not unique to tax expenditures; similar interactions typically exist in related entitlement programs.⁸ Nevertheless, given the level of uncertainty surrounding the estimates of the revenue loss associated with individual provisions and the potential for interactions, this analysis follows current practice by not adding up revenue losses.

Second, the estimates of revenue losses are not necessarily equivalent to the amount of funds that would be gained by repealing the tax preferences. Repeal is not likely to be retroactive, and the federal government would still bear revenue losses from actions taken before repeal. For example, tax-exempt bonds continue to provide tax-free income even though the Congress limited the power of the states to issue them in 1986. Furthermore repealing a tax expenditure could change the tax status of the firms and individuals who use it. Those changes in status could, in turn, alter their tax liabilities. In addition, current tax law permits taxpayers to carry forward unused deductions and credits for up to 15 years. Finally, changes in tax law could affect taxpayers' behavior, which would in turn affect revenue.

The third measurement issue concerns the effects of inflation on the provisions for depreciating assets. By eroding the true value of the original costs, inflation distorts the historical cost-accounting system on

which depreciation provisions are based. Deductions for depreciation are thus understated. Some analysts argue that since the Congress intended the depreciation provisions to compensate for the effect of inflation, those provisions should not be considered tax expenditures. CBO decided, however, to include depreciation. The current corporate tax system is not, on the whole, indexed for inflation; consequently, the normal tax rules might well be biased against investment in an inflationary period. In that case, helping businesses deal with inflation to encourage investment would be a form of business support. Further evidence for this position comes from the fact that most of the relatively few indexing provisions in the tax code are for individuals, not corporations.

Given those difficulties in measuring tax expenditures, this analysis should be viewed as illustrating the central features of federal policy rather than as defining or measuring exactly the impacts of all business-related tax expenditures.

Federal Activities That Are Not Counted as Business Support

The Congressional Budget Office's decision to include only programs and provisions whose primary intent is to help business and industry means that the study excludes whole categories of federal actions that can have profound effects on specific industries and enterprises. This section examines some of the implications of that decision. The major categories of federal activities that CBO excluded are:

- o Macroeconomic policy,
- o Benefits to individuals,
- o Nonindustrial research and development,
- o Federal procurement and sales, and
- o Infrastructure and social capital.

7. For example, eliminating one exclusion might force many taxpayers into a higher marginal tax bracket, thus raising the value of their remaining exclusions and deductions. Eliminating itemized deductions could lead taxpayers to forgo itemizing, thus eliminating the value of the remaining deductions.

8. Consider, for example, how changes in unemployment insurance outlays affect Social Security outlays. If unemployment benefits fall, retirement will become relatively more attractive for some individuals, and Social Security benefits may rise. Conversely, if unemployment benefits rise, many of the same individuals will opt for unemployment rather than retirement, and so Social Security outlays may fall.

Macroeconomic Policy

Macroeconomic policy instruments, such as general tax cuts or increases in the money supply, are not directed specifically at business or industry but at the economy as a whole and are therefore excluded. This analysis also excludes the different impacts of monetary or fiscal policy on various industries. For example, specific sectors of the economy may be affected differently by changes in interest rates resulting from policy actions. Although the question of how such policies affect specific sectors may be important to economic decisionmakers, those policies do not support individual industries.

The very structure of the tax system and therefore changes in tax rates have profound implications for both the amount of commerce and the relative sizes of industries. The effect of the tax structure is an important topic but is beyond the limits of this exercise because the primary purpose of the tax system is to raise funds to pay for governmental services, not promote one or another activity.

Benefits to Individuals

The federal government provides benefits, such as food stamps or Medicare, to individuals and classes of individuals who are deemed eligible for such goods or services. Most federal benefits to individuals fall into certain areas of stated public interest, such as health care, housing, and retirement. Medical services include Medicare (\$178 billion in 1995), Medicaid (\$89 billion), and the exclusion of employer contributions to health insurance from taxable income (\$46 billion). Housing benefits with the largest budgetary impact include the deductibility of interest on homes (\$54 billion in 1995), housing assistance (\$24 billion), and the deductibility of property tax on owner-occupied homes (\$14 billion). Retirement benefits include retirement-related tax provisions that have direct effects on business.

Although the federal benefits that individuals receive may stimulate the demand for the good or service provided (for example, Medicare increases the amount of medical services used each year), the primary intent of the policy is focused on the recipi-

ents. The beneficial effects on industry, though often welcome and highly touted, are not the primary concern, however, and so benefits to individuals are not counted as providing business support.

This study also excludes the federal payments for resolving failed savings and loan institutions. The individual depositors, not the owners of the closed thrifts, were the primary beneficiaries of those federal efforts.⁹

Nonindustrial Research and Development

Nonindustrial R&D, whether performed in federal laboratories or through contracts and grants, may have collateral effects on business, but unless such research has clear industrial goals, CBO has not included it. Most of the Department of Defense's R&D programs, for example, are related to producing better weapon systems; only DoD's dual-use and other commercially oriented R&D has been included, as discussed above. Defense R&D is estimated to total \$35 billion in 1995, of which CBO included only \$1.8 billion. Most of NASA's R&D was excluded for similar reasons.

In the past few years, the federal government has entered into an increasing number of cooperative research and development agreements (CRADAs) with private companies in areas of common interest. Because the federal agencies involved receive some direct benefit in return, CBO has excluded CRADAs for purposes of this tally.

CBO has also excluded very basic research on the grounds that although some of it may eventually bear commercial fruit, the links are very indirect and difficult to untangle. Potential commercial benefits are only one of the reasons the federal government supports basic science. Consequently, the analysis excludes most outlays of the National Science Foundation and all of the Department of Energy's outlays for general science. (NIH's research and develop-

9. This treatment is consistent with other CBO analyses with regard to failed financial institutions. For more discussion, see Congressional Budget Office, *Reforming Federal Deposit Insurance* (September 1990).

ment efforts were discussed earlier in this chapter.) Furthermore, the most common direct outcome of basic research is the education of graduate students and advanced undergraduates; that too has been excluded.

Federal Procurement and Sales

Federal expenditures for goods and services that the government uses may have significant effects on the level of output and profits in certain industries. Those purchases, however, are made for reasons other than to stimulate business. For example, military contracts benefit industries such as aerospace, but their primary purpose is national security. CBO estimates that federal outlays for defense procurement in 1995 will be \$55 billion, including purchases of weapons and other goods and services.

Federal procurement is often restricted to domestic suppliers, through the Buy American Act and other, similar legislation. Such restrictions stimulate the demand for U.S. goods and services and thus support business. However, CBO has excluded the subsidy value of that restricted procurement from this tally. Only part of the cost of the goods bought under the Buy American Act and similar provisions represents the cost of that law. The rest, and presumably the bulk, of the costs of such purchases represent payment for the goods or services in question. Though possibly large in total, the costs of directed procurement provisions are diffused throughout the budget with every procurement item. Calculating the sum would therefore be difficult, if not impossible, and so has largely been excluded.

Systematically selling federal assets and resources, especially water and land resources, at below-market prices is also a form of business support. Like Buy American purchases, however, the budgetary costs of systematic undercharging are scattered throughout the budget, vary by asset or resource sale, and have therefore not been included.

Infrastructure and Social Capital

The benefits of spending on physical infrastructure (for example, roads and bridges) and on social capital (for example, education and public health and safety) are impossible to assign broadly to business and industry. Sewers and water lines, for instance, benefit the entire community, although occasionally such investments can help a real estate developer. Similarly, an educated workforce is an asset to business and industry, but the primary beneficiary is the recipient of the education. Only in the case of the Bureau of Reclamation, an agency that was established to deliver water for agriculture, has CBO included spending on infrastructure.

In addition, a great deal of infrastructure is paid for by user fees, such as those collected in the Highway Trust Fund. Although cross-subsidies may be created if some users do not pay their fair share, the issue is not whether federal support exists but whether prices charge users fairly.

If user fees are not sufficient to cover the federal government's costs for an activity, the pricing (or sometimes mispricing) of the activity can create the impression of business support, even though such support may not at all characterize the goal of the activity or program.¹⁰ Determining whether such cases are the result of a conscious decision to support a commercial activity or whether there is some alternative economic explanation is difficult without a detailed examination, which is beyond the scope of this study.

10. In situations in which the fixed investment is large and the cost to serve one additional user is small, as is often the case with public infrastructure, charging the user the full cost might result in uneconomic use of the facility. For a more complete discussion of cost recovery under economies of scale, see Congressional Budget Office, *Paying for Highways, Airways, and Waterways: How Can Users Be Charged?* (May 1992), pp. 5-8.

Cross-subsidies further complicate the distinction between spending on infrastructure that supports business and spending that does not. Cross-subsidies occur when one category of users pays more than its share so that other categories of users pay less. If business users of infrastructure are charged less than other users, that helps business users; however, it does not mean that the entire infrastructure project or program supports business. CBO chose to exclude such cross-subsidies because of the difficulties in disentangling the flows of subsidies. CBO's tally may therefore underestimate the true extent to which spending on infrastructure supports business.

Other Excluded Categories

The 1984 study included the preferential tax treatment of capital gains not related to housing, but this study does not. Since 1984, various laws have changed the treatment of net long-term capital gains relative to that accorded ordinary income. That benefit now accrues only to individuals, not to corporations, and consists of a maximum statutory tax rate of 28 percent on income from realized capital gains rather than a possible maximum income tax rate of up to 39.6 percent (the rate depends on one's total income). The Joint Committee on Taxation estimates that the tax expenditure from a lower top tax rate will be \$9.1 billion in 1995.

The current treatment of capital gains may offset several distortions within the tax system, including the double taxation of an individual's savings, the tax bias in favor of corporate debt, the taxation of gains resulting from inflation, and the deferral of the tax on the capital gains from an asset until it is sold (the so-called lock-in effect). In the last instance, without

some special treatment of capital gains, individuals would hold assets longer to avoid the one-time tax than would be economically optimal. CBO does not suggest that the tax system perfectly balances all those distortions, but the current treatment of capital gains balances some adverse treatment of business and so should not be viewed as a separate element of business support.

Some analysts believe that the special treatment of capital gains indeed supports business. They point to the rationale that is commonly offered during debates on capital gains that such different treatment encourages private investment in entrepreneurial businesses by lowering the cost of venture capital. CBO believes, however, that the current treatment of capital gains lowers the cost of capital throughout the economy relative to nonpreferential treatment and does not apply uniquely to gains from investment in business. Therefore, its effect is similar to that of macroeconomic policy, which CBO has also excluded from its tally.

The National Railroad Passenger Corporation (Amtrak) has the authority to become truly private but has not done so. If it should ever become financially sound, Amtrak would undoubtedly use that power and become a transportation company. Since it has not done so, Amtrak is considered a government entity rather than a business.¹¹ Consequently, CBO does not count funds appropriated to it as business support. Payments to Amtrak are projected to amount to \$550 million in 1995, with another \$390 million allocated to ancillary efforts such as the Northeast Corridor Improvement Program.

11. In *Lebron v. National Railroad Passenger Corp.*, the Supreme Court ruled that Amtrak was a government entity.

Federal Activities That Support Business

The government supports business through spending programs, credit activity, and tax preferences. Of the three types of support, tax expenditures represent the government's largest financial effort. The arithmetic sum of the business-oriented tax preferences is more than twice the size of the business-oriented spending and credit programs combined. That sum does not represent total revenue losses because it does not take into account the interactions among individual provisions. It does, however, suggest the extent of the government's use of the tax system in promoting business.

The Joint Committee on Taxation (JCT), which prepared all the estimates of tax expenditures, estimates that the largest tax preference--accelerated depreciation of capital assets--will cost the government about \$32 billion in 1995. That amount is larger than the value of all the business-oriented spending programs combined. The Congressional Budget Office estimates that federal spending programs will provide about \$27.9 billion in business support in 1995. Credit programs are estimated to account for \$2.2 billion in subsidies and administrative costs for \$7.3 billion in new loans and \$33.2 billion in loan guarantees (see Table 1). Spending and credit programs together account for 2 percent of federal outlays.

The overall pattern of using the tax system as the primary vehicle for tax support is similar to what CBO found in 1984. Because of the dominance of tax expenditures, most federal efforts to promote business are entitlements, as they were in 1984. With entitlements, the Congress sets general eligibility requirements, and then all who qualify may receive the benefit or tax preference. Thus, most business-

oriented federal support is not subject to the annual appropriation cycle. That means the Congress does not explicitly consider annually most funds spent for business support against alternative uses of the funds. (Some agriculture spending programs that support business are also entitlements and are not appropriated by the Congress.)

Tax Expenditures

Tax expenditures account for the bulk of federal efforts to promote business.¹ A small number of provisions of the tax code account for a large share of the revenue loss (see Table 2). The amount of support provided by those preferences and by more than 50 other, smaller ones is detailed in Appendix A. The Joint Committee on Taxation estimates that 15 of those preferences will each result in revenue losses that exceed \$1 billion in 1995.

Although the federal government's use of the tax system as the main vehicle for supporting business has remained constant since 1984, the details of such

1. For a more detailed description of the provisions of the tax system discussed in this study, see Senate Committee on the Budget, *Tax Expenditures: Compendium of Background Material on Individual Provisions*, S. Prt. 103-101, prepared by the Congressional Research Service (December 1994). Estimates of tax expenditures are based on Joint Committee on Taxation, *Estimates of Federal Tax Expenditures for Fiscal Years 1995-1999*, prepared for the Committee on Ways and Means and the Committee on Finance (November 9, 1995).

Table 1.
Federal Expenditures and Credit Activity
That Support Business, 1995-1999
(In billions of current dollars)

	1995	1996	1997	1998	1999
Program Outlays					
Spending Programs	27.9	29.7	30.1	30.2	30.3
Credit Programs	2.2	2.1	2.3	2.3	2.5
Credit Activity					
Direct Loan Obligations	7.3	6.9	a	a	a
Loan Guarantee Commitments	33.2	33.5	a	a	a

SOURCE: Congressional Budget Office.

a. The Congressional Budget Office prepares estimates of most credit activity only for the current and the next fiscal year.

support have changed substantially. Most important, the Tax Reform Act of 1986 eliminated the investment tax credit, which was one of the largest business preferences. In addition, the treatment of asset depreciation has changed so as to eliminate the previously notable difference in the treatment of different categories of assets, rendering the tax system much more neutral. Those changes are discussed at length in the next chapter. Finally, many of the smaller preferences have been modified or limited, either by tax reform or budgetary pressures.²

Depreciation of Capital Assets in Excess of the Alternative Depreciation System

The subsidy provided by the regular system of accounting for asset depreciation is, in essence, an interest-free loan to businesses. The cost of an asset designed to produce income over several years would normally be deducted over the useful life of the asset;

each year's deduction would represent the decline in the asset's value. The regular system, however, accelerates those deductions in two ways: by allowing firms to deduct more of the asset's cost in the early years, and by depreciating the asset over a period that is shorter than the useful life of most such assets. By taking the deduction up front, firms show lower taxable income in the near term but higher taxable income in later years, when the cost of the asset has been largely or completely written off. Thus, a firm will be able to defer the payment of taxes; that deferral is equivalent to an interest-free loan.

The revenue loss from accelerated depreciation is estimated to be \$32.2 billion in 1995. CBO derived that estimate by adding together three tax expenditures that the Joint Committee on Taxation reports separately: the depreciation of equipment (\$25.6 billion), the depreciation of buildings other than rental housing (\$4.9 billion), and the depreciation of rental housing (\$1.7 billion). Combining those tax expenditures simplifies exposition but does not raise the problems of interaction to the same degree as adding all tax expenditures.

For equipment, the estimate of the tax expenditure reflects both the shortened asset lives and the accelerated depreciation under the regular system relative to the longer asset lives and nonaccelerated (straight-line) depreciation under the alternative system (the Asset Depreciation Range System).³ For structures, the revenue loss reflects only the shorter asset life allowed by the regular system. Given that assets lose more of their value in the early years, nonaccelerated depreciation overstates a firm's economic income and hence its tax liabilities.

Reduced Rates on the First \$10 Million of Corporate Taxable Income

The U.S. tax code provides a graduated tax rate structure for corporations with less than \$10 million in taxable income. Some provision of lower marginal rates on the lowest corporate income brackets has

2. For a detailed discussion of the changes stemming from tax reform, see Congressional Budget Office, *The Effects of Tax Reform on Tax Expenditures* (March 1988).

3. With straight-line depreciation, the asset value is divided by the number of years over which it is to be depreciated. That amount is the annual depreciation of the asset.

been in the tax code since 1936. The lower rates are generally justified as a way of promoting small businesses, which some analysts believe create more jobs for the economy. This tax preference is often compared with the graduated income tax on individuals, but the two situations are not comparable. The lower rate on corporate income cannot be justified on ability to pay, because the owner of a small corporation may be very well off. Furthermore, corporations

with a large sales volume may have a low level of taxable income.

Although the graduation of rates started out quite simply, the Congress and the Internal Revenue Service have introduced complications in the rules governing those provisions in an effort to limit the ability of larger corporations to fragment their operations and thereby take advantage of this provision. Those

Table 2.
Selected Federal Tax Expenditures That Support Business, 1995-1999
 (In billions of current dollars)

	1995	1996	1997	1998	1999
Depreciation of Capital Assets in Excess of Alternative Depreciation System	32.2	31.7	30.8	28.0	28.0
Reduced Rates on the First \$10 Million of Corporate Taxable Income	3.9	4.1	4.3	4.5	4.7
Tax Credit for Corporations with Income from U.S. Possessions (Section 936 Income)	3.7	3.8	4.0	4.1	4.2
Exception to the Source Rule for the Sale of Inventory Property	3.5	3.6	3.7	3.7	3.8
Tax Credit for Low-Income Housing	2.2	2.6	2.9	3.4	3.7
Special Treatment of Life Insurance Companies' Reserves	2.1	2.3	2.5	2.7	2.9
Expensing of Research and Development Costs	2.0	2.1	2.1	2.2	2.3
Deduction of Unpaid Property Loss Reserves for Property and Casualty Insurance Companies	1.6	1.8	1.9	2.1	2.3
Expensing of up to \$17,500 of Depreciable Business Property	1.5	1.1	0.8	0.4	0.1
Exclusion of Income of Foreign Sales Corporations	1.4	1.5	1.5	1.5	1.6

SOURCE: Congressional Budget Office based on Joint Committee on Taxation, *Estimates of Federal Tax Expenditures for Fiscal Years 1995-1999*, prepared for the Committee on Ways and Means and the Committee on Finance (November 9, 1994).

NOTE: See Appendix A for a complete list of tax expenditures that support business.

complications result in higher marginal rates for firms as they shift into higher income categories.

Tax Credit for Corporations with Income from U.S. Possessions

U.S. tax law gives U.S. corporations a credit to offset some of their U.S. tax liability on income from business operations and certain financial investments in U.S. possessions, such as Puerto Rico and the Virgin Islands. This credit has long been part of U.S. policy. JCT estimates that it will cost \$3.7 billion in 1995.

In its early years, the credit had the general effect of exempting qualifying corporate income generated in Puerto Rico and the Virgin Islands and other U.S. possessions from federal taxes. The Omnibus Budget Reconciliation Act of 1993 scaled back the credit effective January 1994. U.S. corporations may now choose between limits based on a percentage of the credit that would have been allowed before the act and limits based on economic activity in the possession. Under the first alternative, the allowable credit gradually declines from 60 percent of the prior-law credit in 1994 to 40 percent in 1998 and thereafter. Under the second alternative, the credit is limited to the sum of 60 percent of wages and fringe benefits paid in the possession and a specified percentage of deductions for depreciation.

To qualify, a corporation has to be actively in the business for which it receives a credit. It also has to have a U.S. charter and obtain roughly 80 percent of its income from activities in those U.S. possessions. Pharmaceutical companies claim half the credits.

Exception to the Source Rule for the Sale of Inventory Property

The tax code's rules regarding the source of inventory sales interact with the foreign tax credits in such a way as to exempt from U.S. taxation a portion of a firm's export income. U.S. tax law limits the portion of foreign taxes that firms can claim as a credit against their U.S. tax liabilities; foreign taxes above the limit cannot be credited and thus become excess

credits. If firms with excess credits shift income from their U.S. operations to foreign operations, however, they can then use the excess credits. JCT estimates that the revenue loss from this tax expenditure will be \$3.5 billion in 1995.

The tax code's treatment of inventory sales facilitates this shift in income from domestic to foreign operations. In most cases, sales are credited to the seller's country of residence. Under that general rule, exports from the United States count as U.S. income. However, sales of inventory property are treated differently. Income from inventory sales is viewed as coming from the country where the sale occurs. Income generated by the sale of inventory that is manufactured in the United States and sold abroad by a taxpaying company is treated as having a divided source, half U.S. and half foreign. The foreign component of that income may be used against the excess credits.

Tax Credit for Low-Income Housing

The tax credit for low-income housing encourages individuals and corporations to invest in low-income housing. Taxpayers can receive a credit for new construction and for rehabilitating older buildings. The law requires that the tax credit be paid annually over 10 years. The present value of that stream of credits can equal up to 70 percent of the depreciable costs incurred in new construction of low-income housing units that does not receive other federal subsidies. Rehabilitated units and subsidized units receive credits with a present value of up to 30 percent of the depreciable basis of the units. To qualify for the credit, the housing units in question must meet requirements concerning tenants' income. If the units are sold or change in purpose within a specified period, the owners have to repay a portion of the credit. JCT estimates that in 1995 the low-income housing credit will cost \$2.2 billion.

Special Treatment of Life Insurance Companies' Reserves

Normally, businesses deduct expenses from their income when the business becomes liable for paying

them. The tax code, however, allows life insurance companies to deduct additions to their reserves for future liabilities originating from life insurance policies. Thus, they can offset current income with future liabilities. JCT estimates that this tax expenditure will cost \$2.1 billion in 1995.

Reserve accounting, which forms the basis of this tax expenditure, is the standard method of accounting for regulatory purposes when dealing with insurance companies. The primary goal is to ensure that an insurance company will have sufficient reserves to meet its commitments. The understatement of current income that results when future liabilities are used to offset current income is regarded as merely prudent.

When the income tax system is added into the equation, however, understating current income produces a tax advantage. The combination of the tax benefits and some tax advantages that accrue to individuals makes life insurance a more attractive investment than it would be without the tax system.

Expensing of Research and Development Costs

Firms are allowed to deduct the entire cost of certain research activities—mainly labor and materials—in the year they are undertaken, even though the activities are designed to produce income over a number of years. As with excess depreciation of physical assets, this early deduction of costs represents the equivalent of an interest-free loan to the taxpayer. The provision was first included in the Internal Revenue Code of 1954 to encourage and clarify the tax treatment of research and development expenditures. JCT estimates that the provision will cost \$2 billion in 1995.

Deduction of Unpaid Property Loss Reserves for Property and Casualty Insurance Companies

The tax code allows property and casualty insurance companies to deduct the discounted value of the esti-

mated losses they will be required to pay in the future under insurance policies now in force, including claims in dispute. This provision of the law permits them to deduct future expenses from current income and thereby defer tax liability. By contrast, most businesses calculate taxable income by deducting expenses as they become due. As with excess depreciation, this early deduction of costs represents the equivalent of an interest-free loan to the taxpayer. JCT estimates that this provision will cost the Treasury \$1.6 billion in 1995.

Although CBO follows convention and includes this deduction as a tax expenditure, sound arguments can be made opposing such inclusion. Because the insurance industry is based on its ability to estimate future payments on current policies, deducting those payments, properly measured and discounted, from current income seems appropriate. Indeed, federal budgeting practice for credit programs scores the expected present value of a contingent liability, such as a loan guarantee, when it is incurred, not when it is paid. From that viewpoint, only the deduction of payments on contested claims is a tax expenditure. In contrast, federal noncredit programs, such as some insurance programs, operate on a cash basis.

Expensing of up to \$17,500 of Depreciable Business Property

All businesses can deduct as an expense up to \$17,500 of the cost of a capital asset in the year it is put into place. Normally, businesses would take the entire cost of a capital asset and depreciate it over several years. Because the favorable treatment begins to phase out when the total amount of capital assets put in service exceeds \$200,000 in any year, this provision is intended to reduce the tax burden on small businesses. JCT estimates that this provision will cost \$1.5 billion in 1995.

Exclusion of Income of Foreign Sales Corporations

Provisions in the U.S. tax code permit U.S. firms to exempt from U.S. taxes part of the income they derive from exports. One way a U.S. firm can take ad-

vantage of those provisions is to form a subsidiary foreign sales corporation (FSC) in a qualifying country or possession and meet certain requirements that ensure a minimal presence in a foreign location. The tax code exempts a portion of the FSC's own export income from taxes, and the FSC can pass the tax savings back to its parent corporation. JCT estimates that the preference for FSCs will cost \$1.4 billion in 1995.

Spending Programs

All federal spending programs that support business will cost an estimated \$27.9 billion in 1995, with 10 programs accounting for almost three-quarters of that amount (see Table 3). Such spending has increased by two-thirds in nominal terms since 1984 but has grown by only one-ninth if inflation is taken into ac-

Table 3.
Selected Federal Spending Programs That Support Business, 1984 and 1995
(Outlays in billions of 1995 dollars)

	1984 (Actual) ^a	1995 (Estimated)
Commodity Credit Corporation ^b	10.6	7.9
National Institutes of Health—Applied Biomedical Research ^c	2.0	3.7
Department of Energy—Technology Development for New Energy Sources ^d	4.0	3.4
Conservation Reserve Program	0	1.9
Cooperative State Research, Education, and Extension Service ^e	0.8	0.9
Bureau of Reclamation ^f	1.2	0.8
Agricultural Research Service	0.7	0.8
Federal Crop Insurance Corporation	0.7	0.6 ^g
Community Development Block Grants	0.6	0.5
Technology Reinvestment Project	0	0.5
Other	4.5	7.0
Total	25.0	27.9

SOURCE: Congressional Budget Office.

NOTE: See Appendix B for a complete list of spending programs that support business.

a. Adjusted for inflation using the fixed-weighted price index.

b. Spending for 1984 includes outlays for the export credit program; spending for both 1984 and 1995 excludes salaries and expenses.

c. The National Institutes of Health was not included in the 1984 tally but is presented here for comparability.

d. Excludes cleanup of Department of Energy facilities and energy conservation grants.

e. The Conservation Reserve Program was set up in 1985.

f. In 1984, the Extension Service and the Cooperative State Research Service were separate entities.

g. The Bureau of Reclamation was not included in the 1984 tally but is presented here for comparability.

h. Excludes \$68 million in salaries and expenses, which are in the consolidated Farm Service Agency.

i. The Technology Reinvestment Project was set up in 1992 and 1993.

count; in 1984, the programs listed in this category cost \$25 billion in 1995 dollars.⁴ The National Institutes of Health and the Conservation Reserve Program are the largest contributors to this growth. Several of the largest programs included in 1984 have decreased substantially.

Commodity Credit Corporation

The programs of the Commodity Credit Corporation (CCC) are designed to enhance farm income and support prices and to stabilize the market for agricultural products. Agricultural commodity price supports and related programs account for most of the CCC's outlays. The CCC provides support through loans, purchases, and other means. Price supports are mandatory for wheat and feed grains, cotton, milk, sugar, and a variety of other agricultural products.

Nonrecourse loans are an important instrument in the CCC program. Any farmer who participates in an annual price support program is eligible to receive a loan equal to the value of that year's crop; the value is set at a federally determined support price. At the end of the loan period, which is typically nine months, the farmer must either pay back the loan plus interest or--with no penalty, or recourse--deliver the crop to the CCC.

Commodity loans thus act as price guarantees to the farmer. In essence, the federal government pays for the crop but gives the farmer the option of selling it privately at a higher price within nine months and returning the cash the government originally paid, plus interest. As long as the market price is above the support price, the farmer will probably sell the crop in the open market and repay the loan.

In the earlier years of the program, the support prices were set high enough that many farmers delivered their crops to the CCC. In recent years, however, the support prices have been set low enough in relation to the market price that very few farmers have done so, particularly those who grow cotton and rice. If the world price of those two crops falls below the U.S. price, the farmers are allowed to pay back the loan at the world price, further discouraging them from ceding their crop to the government.

CBO included the CCC commodity loans and their associated costs with spending programs rather than with credit programs because the Federal Credit Reform Act of 1990 exempted them from the budgeting conventions used for other credit programs. Consequently, CBO makes no present-value calculations of the subsidy value implicit in the loan. Indeed, because the interest rate is above the federal borrowing rate, there might be no legal subsidy to assign to the program, even though that rate is probably well below the farmers' borrowing rate. Thus, the basis for calculating the federal costs associated with nonrecourse loans is very different from that of other credit programs. The CCC's export guarantees, however, are not exempt from credit reform and are discussed below in the credit section.

In 1995, CCC programs are estimated to cost \$7.9 billion, down from \$10.6 billion in 1984 adjusted for inflation.⁵ In addition to the \$7.9 billion, the CCC incurs other costs. The salaries and expenses of the federal employees administering the CCC programs, for example, are paid by the Farm Service Agency. In 1995, those administrative costs will total an estimated \$725 million. For future years, those costs will be combined with the salary costs of the Federal Crop Insurance Corporation in the Farm Service Agency, and consequently they are not estimated here separately; however, they are included in the totals and in Appendix B.

4. To make 1984 spending comparable with 1995 spending, CBO converted 1984 funds to 1995 dollars using the fixed-weighted price index. That conversion provides a better measure of the allocation of resources and changes in policy.

The programs included in the 1984 and 1995 tallies overlap but are not identical for reasons discussed in Chapter 2. The National Institutes of Health and the Bureau of Reclamation were not included in the 1984 tally but are included here for comparability.

5. The 1984 figure includes \$3.1 billion in nonrecourse and other loans and loan guarantees. As an entitlement, the CCC's spending levels fluctuate with the economy, and not all changes in spending reflect changes in policy.

Applied Biomedical Research at the National Institutes of Health

The National Institutes of Health funds and conducts much of the biomedical research in the United States. NIH has almost two dozen components and institutes that concentrate in different areas of research. In addition to funding biomedical research at hospitals and universities, NIH also funds research on its campus outside Washington, D.C. Seven-eighths of its funding, however, supports extramural research.⁶

Most of the research funded by NIH involves basic and academic research, but a substantial portion supports applied biomedical research and clinical development, which are of near-term use to firms and doctors in health and related lines of business. Based on previous patterns of research funding, CBO assumes that \$3.7 billion of the \$11 billion NIH is estimated to spend this year will fall into that category. NIH uses almost a quarter of the applied research funds, or about \$1 billion, for the preclinical and clinical development of specific pharmaceuticals. If the same patterns had held in 1984, CBO estimates that NIH would have spent \$2 billion on applied research (in 1995 dollars).

Energy Technology R&D Activities

The Department of Energy has three major R&D programs devoted to developing new sources of energy. Those programs will cost an estimated \$3.4 billion in 1995 compared with \$4 billion in 1984 (in 1995 dollars). That tally excludes the costs of cleaning up the department's facilities and of energy conservation grants. (The Clean Coal Technology Program—\$300 million in 1995—is included elsewhere in this tally.)

Energy supply R&D is the largest of these programs and includes R&D into nuclear energy, solar and renewable energy sources, fusion, and some aspects of energy safety. It will cost an estimated \$2.5 billion in 1995. The other two major energy R&D programs are in fossil fuels, such as coal and oil, and

energy conservation. Each accounts for an estimated \$430 million in 1995 outlays.

Conservation Reserve Program

The Congress set up the Conservation Reserve Program (CRP) under the Food Security Act of 1985. The CRP is intended to address erosion and environmental concerns, curb the production of surplus agricultural commodities, and support farmers' income. It is a successor to earlier programs, such as the soil bank, that encouraged farmers to idle land. The CRP will cost an estimated \$1.9 billion in 1995, primarily in rental payments for idled land.

Farmers' participation in the CRP is voluntary. The Department of Agriculture solicits proposals from farmers to enter a portion of their eligible land in the program. Land that is accepted for enrollment is generally put under a 10-year contract that requires farmers to remove the land from production and establish a protective cover crop. The farmers also take a proportionate reduction in payments to which they are entitled under the agricultural income support programs, such as those of the CCC. The CRP pays rent on the land and covers a portion of the costs of the cover crop. Through 1994, approximately 36 million acres were enrolled in the CRP.

Cooperative State Research, Education, and Extension Service

This agency participates in a nationwide system of research and education planning and coordination between the Department of Agriculture and state institutions. It provides grants to land grant colleges for their agricultural experiment stations and to scientists for research related to agriculture, plants, animals, and food. In 1995, the Department of Agriculture will spend about \$930 million on the Cooperative State Research, Education, and Extension Service. In 1984, when the Cooperative State Research Service and the Extension Service were separate entities, their combined spending totaled \$830 million (in 1995 dollars).

6. National Institutes of Health, *NIH Extramural Trends: Fiscal Years 1984-1993* (Bethesda, Md.: NIH, October 1994), p. 2.

Bureau of Reclamation

Since its founding in 1902, the primary purpose of the Bureau of Reclamation has been to provide water for agriculture in the western United States. Although its focus has broadened to include electricity, agricultural water remains its primary mission. To accomplish that mission, the bureau builds and maintains hydroelectric dams, reservoirs, canals, pipelines, pumping stations, and other irrigation infrastructure. The largest project under construction is the Central Arizona Project, which will use water from the Colorado River to irrigate fields in Central Arizona and provide municipal supplies to Phoenix and Tucson. CBO estimates that construction of new facilities and operations and maintenance will cost the bureau \$780 million in 1995.

Although most infrastructure is excluded from this tally of business support, the Bureau of Reclamation's projects are dedicated primarily to providing a crucial input (water) into a type of business (agriculture). Other agencies may have some infrastructure projects that help business, but they typically do so incidentally or as a small percentage of their overall budget. By contrast, the bulk of the bureau's projects are designed to provide water for agriculture. In 1990 and 1991--the last year for which data are available--85 percent of the water the bureau delivered went to agricultural irrigation.⁷ Furthermore, even though the bureau sells electrical power, it does so after subtracting the cost of the electricity needed to pump the water. Given this pattern of investment and output, CBO included the bureau in its tally of business support.

Some analysts may disagree with CBO's classifying the Bureau of Reclamation as business support, because in recent years the bureau has broadened its mission to include other goals, including environmental and wildlife management and recreation.⁸ Lacking specific data on how those newer goals have affected budget outlays, CBO has chosen to continue

to count the bureau's spending as business support. To the extent that the newer missions drive the budget, this tally will overstate that support.

Agricultural Research Service

The Agricultural Research Service (ARS) funds research in areas of interest to agricultural producers, including soil and water conservation; plant science and productivity; animal science; food safety, processing, and delivery; and human nutrition. The aim of such research is to provide the country with a safer and more economical food supply and to provide producers with technologies to supply food products on a competitive basis. The ARS will spend an estimated \$760 million on such research in 1995, up from an inflation-adjusted \$720 million in 1984. (The Federal Crop Insurance Reform and Department of Agriculture Reorganization Act of 1994 made the National Agricultural Library part of the ARS, and CBO has adjusted the 1984 expenditures to reflect that change.)

Federal Crop Insurance Corporation

The Federal Crop Insurance Corporation (FCIC) is a wholly owned government corporation that insures crop producers against unavoidable losses or uncontrollable events. Farmers can claim losses caused by natural hazards such as weather, floods, and pests but not those resulting from bad or negligent farming practices. The premiums farmers pay are subsidized and cover all types of agricultural commodities from almonds to wheat. In 1995, the FCIC will spend an estimated \$640 million on insurance, which is similar to its spending in 1984 (\$650 million in 1995 dollars). (The 1995 estimate does not include roughly \$68 million in salaries and expenses that are included in the consolidated Farm Service Agency. The Federal Crop Insurance Reform and Department of Agriculture Reorganization Act of 1994 made the FCIC

7. Department of the Interior, Bureau of Reclamation, *Water, Land, and Related Data: 1991 Summary Statistics* (Denver, Colo.: Bureau of Reclamation, no date), p. 1.

8. Department of the Interior, Bureau of Reclamation, *Reclamation's Strategic Plan: A Long-Term Framework of Water Resources Management, Development, and Protection* (June 1992).

part of the consolidated Farm Service Agency, but the FCIC retains its status as a wholly owned government corporation.)

In late 1994, the FCIC was modified to provide a base level of catastrophic coverage to farmers. That coverage is completely subsidized except for a small handling fee, and additional subsidized coverage is also available. CBO estimates that those changes will increase the subsidy level of the insurance from \$235 million in 1994 to \$690 million in 1995. The insured value of crops is expected to rise from \$12.6 billion in crop year 1994 to \$21 billion in crop year 1995.⁹

Community Development Block Grants

The federal government uses Community Development Block Grants (CDBGs) to stimulate economic development. First authorized under the Housing and Community Development Act of 1974, the grants provide flexible community development support to units of local government. Activities related to housing rehabilitation and public works receive the largest share of grants. A smaller portion of CDBG funds supports businesses. CBO estimates that the CDBG program will spend \$510 million on support for local business development in 1995, down marginally from \$580 million in 1984 (in 1995 dollars).

Technology Reinvestment Project

The Technology Reinvestment Project (TRP) is designed to integrate the military and commercial sectors of the economy.¹⁰ It consists of eight statutory programs that fund awards competitively to organizations that develop dual-use technologies, deploy existing technologies and transfer effective business practices to firms, or build and promote college and university curricula in manufacturing education. All

eight programs require award recipients to share costs. The TRP will cost an estimated \$500 million in 1995. (This estimate does not reflect the \$300 million rescission that was passed after the estimate was made.) The project did not exist in 1984.

The end of the Cold War has reduced the need for a defense industrial base of the size that existed during the previous four decades. Given the new, smaller size of the defense industrial base, many analysts feel that it will no longer be able to keep U.S. weapon systems at the forefront of technology. In addition, civilian technology in some cases is clearly superior to military technology. Consequently, the TRP was established to encourage defense firms to use commonly available technology for weapon systems and to use civilian markets to maintain their technological capabilities.

Credit Programs

A small number of programs dominate federal credit activity in support of business. Those programs include the Export-Import Bank, the Small Business Administration, the Commodity Credit Corporation, and the Rural Utilities Service. Since 1990, credit reform has covered all of those programs, with one exception: the CCC's commodity loans are essentially an entitlement, are therefore not subject to credit reform, and are treated in this study as a spending program rather than as credit activity.

A combination of budgetary pressures and credit reform has served to reduce loans, which are more expensive, while allowing guarantees, which are usually less expensive initially, to grow. The volume of federal loans to business has fallen since 1984, from \$11.6 billion (in 1995 dollars) to \$7.3 billion in 1995. New loan guarantee commitments, by contrast, have risen from \$22 billion in 1984 to \$33.2 billion in 1995 (see Table 4 for some of the largest credit programs). Federal credit programs that may have been substantial in 1984 but that no longer contribute much to the budget deficit are listed in Appendix C.

As noted in Chapter 2, measuring the cost of credit programs in 1984 is problematic. CBO used

9. A crop year signifies the year in which a crop is brought to market and does not necessarily correspond to fiscal or calendar years. It also varies by crop.

10. For a detailed description of the TRP, see Congressional Budget Office, *The Technology Reinvestment Project: Integrating Military and Civilian Industries*, CBO Paper (July 1993).

net program outlays for the 1984 figures and administrative and subsidy costs for the 1995 figures. For that reason, historical comparisons of program costs for individual programs will not be made. Loan and guarantee levels illustrate the general trend sufficiently.

Export-Import Bank

Among the most expensive credit programs for the federal government to run are those of the Export-Import Bank. Eximbank promotes U.S. exports by providing loans and loan guarantees to foreign pur-

chasers of U.S. goods. The annual volume of Eximbank's loans has more than doubled since 1984, from \$2.1 billion (in 1995 dollars) to \$4.6 billion in 1995. Loan guaranteed commitments have also risen, from \$10.4 billion to about \$14.3 billion. Eximbank's subsidy and administrative outlays for 1995 are estimated to total \$345 million.

The direct loan program provides loans at below-market interest rates to finance foreign purchases of U.S. goods. The loan guarantees encourage commercial banks to extend credit to buyers by reducing the risk inherent in financing exports. The charges on the guarantees do not fully compensate the federal government for its contingent liability.

Table 4.
Selected Federal Credit Programs That Support Business, 1984 and 1995 (In billions of 1995 dollars)

	Direct Loan Obligations		Loan Guarantee Commitments		Subsidy and Administrative Outlays	
	1984 ^a	1995	1984 ^a	1995	1984	1995
Export-Import Bank	2.1	4.6	10.4	14.3	b	0.5
Commodity Credit Corporation ^b	0.2	0	6.1	3.8	b	0.4
Agricultural Credit Insurance Fund	5.8	0.6	0.6	1.4	b	0.4
Small Business Administration	0.7	0.7	4.4	9.7	b	0.6
Rural Utilities Service ^c	2.5	1.1	0	0	b	0.1
Other	0.1	0.3	0.6	4.1	b	0.2
Total	11.6	7.3	22.0	33.2	b	2.2

SOURCE: Congressional Budget Office.

NOTE: See Appendix C for a complete list of credit programs that support business.

a. Adjusted for inflation using the fixed-weighted price index.

b. CBO did not calculate subsidies for 1984.

c. Includes only the CCC's export credit program, not its commodity loans.

d. The Congress merged the Rural Electrification Administration and some of the Department of Agriculture's rural development grants into the Rural Utilities Service in 1994.

CCC Export Loans Program

The Commodity Credit Corporation promotes the export of agricultural commodities through a variety of means. The export credit program of the CCC is subject to the Federal Credit Reform Act's rules on budgeting and so is included here. In 1995, this program will provide an estimated \$3.8 billion in new loan guarantee commitments at a cost of \$370 million to the taxpayer in subsidy and administrative costs. In 1984, it had \$200 million in new direct loan obligations and \$6.1 billion in new loan guarantee commitments (in 1995 dollars).

Agricultural Credit Insurance Fund

The Agricultural Credit Insurance Fund (ACIF) provides loans and loan guarantees for farm ownership and operating expenses, soil and water conservation and development, irrigation, drainage projects, and other agricultural endeavors. CBO estimates that outlays for subsidies and administrative costs will be \$390 million in 1995. The volume of new direct loans has dropped substantially, from \$5.8 billion in 1984 (in 1995 dollars) to roughly \$600 million in 1995. New loan guarantee commitments have risen, however, from \$640 million in 1984 to \$1.4 billion in 1995. (The Federal Crop Insurance Reform and Department of Agriculture Reorganization Act of 1994 moved ACIF into the newly organized Farm Service Agency. Because ACIF accounts are still separate, however, the 1984 spending is generally comparable.)

Small Business Administration

The Small Business Administration (SBA) provides both direct loans and loan guarantees to qualified small businesses. Its lending objectives are to promote small businesses generally, aid economically disadvantaged groups, and help small businesses and

households recover from natural disasters. All of its credit programs offer terms that are more generous than would typically be available to small businesses. For example, the SBA extends credit for up to 25 years. Similarly, the loan guarantee program offers interest rates that are only 2.5 percent above the prime rate. The SBA also lends directly to businesses located in high-unemployment or low-income areas and to businesses owned by designated groups. CBO's estimates assume that roughly one-third of the outlays associated with the disaster loan programs are for businesses because businesses account for one-third of all disaster loans. (Those estimates do not include the SBA's noncredit programs, estimated at \$300 million in 1995.)

The 1995 outlays for the subsidy and administrative costs associated with the SBA's credit programs total \$640 million, which includes \$75 million appropriated as contingency emergency funds. CBO estimates that the SBA will provide almost \$700 million in new loan obligations and \$9.7 billion in new loan guarantee commitments in 1995. In 1984, the Small Business Administration provided \$700 million in loan obligations and \$4.4 billion in loan guarantee commitments (in 1995 dollars).

Rural Utilities Service

In 1994, the Congress merged the Rural Electrification Administration (REA) and some of the Department of Agriculture's rural development grant programs into the Rural Utilities Service. Since the 1930s, the REA has provided credit to rural cooperatives for rural electrification and telephone service. The REA has experienced the most precipitous decline among credit programs, although the loan levels had begun to decline well before credit reform. The REA's loans in 1984 totaled \$2.5 billion (in 1995 dollars), compared with only \$1.1 billion for the Rural Utilities Service in 1995. Subsidy and administrative costs for 1995 are estimated to total \$110 million.

Distribution of Federal Support Among Business Sectors

Federal support of business is distributed very unevenly among industrial sectors and varies in its importance to each sector. Chapter 3 viewed business support from the perspective of the budget; this chapter views it from the perspective of the receiving sector or industry. This analysis divides the federal activities that support business according to the sectors they target, discusses each sector's major source of federal assistance, and describes that aid in relation to the sector's size.

In absolute terms, the agricultural sector receives the largest amount of both spending and credit support. Half of the business-oriented spending goes to the agricultural sector, most of it through the Commodity Credit Corporation. On the tax side, the manufacturing sector receives the largest amount of support because of its sizable investment in depreciable assets. In credit support, it is second only to agriculture.

Relative to the size of the sector, agriculture is also the largest recipient of business support. Federal support for agriculture equals roughly 11 percent of the sector's contribution to gross domestic product.

the assumptions delineated below. The allocation of federal support among sectors, especially the allocation of tax expenditures, is therefore an illustration of the order of magnitude of such benefits, not a definitive accounting. Nevertheless, the major aspects of the allocations and the conclusions drawn from them would remain roughly the same, even with changes in many assumptions.

Major Assumptions

The Congressional Budget Office used the criteria of the Bureau of Economic Analysis (BEA) to define the industrial sectors. Each sector comprises many industries, which do not share federal assistance evenly. Thus, statements about a sector do not necessarily apply to every industry or firm within it.

Furthermore, the ultimate beneficiary of the federal program need not be in the same sector that initially receives the benefit. As a result of the competitive pressures in one sector or industry, firms in that industry may, through price reductions, pass on all the federal benefits to businesses in other sectors or even to final consumers. As noted in Chapter 2, this study analyzes the costs of providing support to business, not the organizations or people who ultimately benefit.

In analyzing federal support for business, CBO did not try to systematically break down spending or credit programs that may benefit more than one sector. Rather, the study allocates support fully to the

Support Targeted Toward a Specific Business Sector

The allocation of support by sectors is extremely rough, and details of this allocation are sensitive to

sector or industry that receives the bulk of that support. Similarly, if the various components of a program help different sectors, CBO allocates funds to the dominant use. In some cases, CBO could not allocate federal support because the data necessary to do so were difficult or impossible to obtain. For instance, many of the firms aided by community development programs are in construction, trades and services, or finance, insurance, and real estate, but data do not exist to tell precisely which industries dominate. Overall, though, finer allocation of those programs would not change the study's major analytic conclusions.

Agriculture, Forestry, and Fisheries

Farm income maintenance programs, specifically those of the Commodity Credit Corporation, dominate federal support for agriculture. Of the \$14.7 billion the agricultural sector is estimated to receive through spending and credit programs in 1995, the CCC accounts for \$7.9 billion. Two major credit programs support agriculture--the Agricultural Credit Insurance Fund and the export credits of the CCC. Those programs account for roughly \$800 million in 1995 in subsidies and administrative costs on \$600 million in new loans and \$5.1 billion in loan guarantees (see Table 5).

Table 5.
Targeted Federal Support for Agriculture (In billions of current dollars)

	1995	1996	1997	1998	1999
Program Outlays					
Spending Programs	13.9	15.4	15.6	15.1	14.8
Credit Programs	0.8	0.8	0.8	0.8	0.8
Credit Activity					
Direct Loan Obligations	0.6	0.6	a	a	a
Loan Guarantee Commitments	5.1	5.6	a	a	a
Sector-Specific Tax Expenditures					
Expensing of Multi-period Costs of Growing Timber	0.4	0.4	0.5	0.6	0.6
Cash Accounting for Agriculture	0.3	0.3	0.3	0.3	0.3
Exclusion of Cancellation of Farmers' Indebtedness Income	0.1	0.1	0.1	0.1	0.1
Expensing of Costs of Raising Dairy and Breeding Cattle	0.1	0.1	0.1	0.1	0.1
Investment Credit and Seven-Year Amortization for Costs of Reforestation	b	b	b	b	b
Exclusion of Certain Cost-Sharing Payments	b	b	b	b	b
Expensing of Costs of Soil and Water Conservation	b	b	b	b	b
Expensing of Costs of Fertilizing and Soil Conditioning	b	b	b	b	b

SOURCE: Data on spending and credit programs are from the Congressional Budget Office. Data on tax expenditures are from Joint Committee on Taxation, *Estimates of Federal Tax Expenditures for Fiscal Years 1995-1999*, prepared for the Committee on Ways and Means and the Committee on Finance (November 9, 1994).

a. The Congressional Budget Office estimates credit activity only for the current and the next fiscal year.

b. Less than \$50 million.

Manufacturing

In absolute terms, the manufacturing sector is second only to agriculture in the level of support it receives from spending and credit programs combined—\$8.2 billion in 1995 (see Table 6). The bulk of that support is for developing and commercializing technology. The largest collections of programs are those of the Department of Defense and the National Institutes of Health, which provide \$1.8 billion and \$3.7 billion, respectively. If those programs also benefit other industrial sectors, however, assigning all of that support to the manufacturing sector may overstate the support that sector receives.

The manufacturing sector receives substantial support through credit programs, largely export credits. Credit programs are estimated to cost \$0.6 billion on \$4.7 billion in loans and \$16.2 billion in loan guarantees in 1995. Although export credits are primarily for manufactured goods, some credits also go to large construction, communications, and other business services.

On the tax side, the manufacturing sector benefits primarily from the large, multisector tax expenditures, but it also has some targeted tax expenditures. CBO allocated to the manufacturing sector the credit for income from U.S. possessions because that sector accounts for over 95 percent of business activity in foreign countries and in U.S. possessions.

Mining

The mining sector receives very little support from spending or credit programs, although it benefits from some sector-specific tax provisions. The spending programs, principally those of the Bureau of Mines, cost the federal government \$200 million per year (see Table 7). That accounting understates, however, the extent of federal support: the Department of Energy's fossil energy research and development program, which includes R&D into better oil recovery and other topics of interest to oil well companies, is included in the total for utilities but obviously contributes to both sectors.

Table 6.
Targeted Federal Support for Manufacturing (In billions of current dollars)

	1995	1996	1997	1998	1999
Program Outlays					
Spending Programs	7.6	8.0	8.1	8.6	9.0
Credit Programs	0.6	0.7	0.8	0.9	0.9
Credit Activity					
Direct Loan Obligations	4.7	4.5	a	a	a
Loan Guarantee Commitments	16.2	16.6	a	a	a
Sector-Specific Tax Expenditures					
Tax Credit for Corporations with Income from U.S. Possessions (Section 936 Income)	3.7	3.8	4.0	4.1	4.2

SOURCE: Data on spending and credit programs are from the Congressional Budget Office. Data on tax expenditures are from Joint Committee on Taxation, *Estimates of Federal Tax Expenditures for Fiscal Years 1995-1999*, prepared for the Committee on Ways and Means and the Committee on Finance (November 9, 1994).

a. The Congressional Budget Office estimates credit activity only for the current and the next fiscal year.

The sector-specific tax expenditures are primarily for oil and gas mining--namely, deductions for the depletion of oil and gas wells (\$600 million) and for exploration and drilling costs (\$500 million). The tax code permits firms to deduct the costs of drilling and developing oil and gas wells in the year incurred rather than spread them out over the life of the well. That special treatment reduces the firms' tax rates, and investments in oil and gas mining are therefore tax-preferred.

Utilities and Sanitary Services

The utilities sector is estimated to receive \$3.9 billion in support from spending and credit programs (see Table 8). That support comes largely from the development of new energy technologies at the Department of Energy. As noted above, some of that spending—for instance, part of fossil energy R&D—more properly belongs in the mining sector. Other small parts of the department's R&D programs may

Table 7.
Targeted Federal Support for Mining (In billions of current dollars)

	1995	1996	1997	1998	1999
Program Outlays					
Spending Programs					
Credit Programs	0.2 a	0.2 a	0.2 a	0.2 a	0.2 a
Credit Activity					
Direct Loan Obligations					
Loan Guarantee Commitments	a a	a a	b b	b b	b b
Sector-Specific Tax Expenditures					
Credit for Producing Nonconventional Fuels					
Excess of Percentage over Cost Depletion	1.1	1.2	1.2	1.2	1.2
Oil and gas	0.6	0.6	0.6	0.6	0.6
Other fuels	0.2	0.2	0.3	0.3	0.3
Nonfuel minerals	0.2	0.2	0.3	0.3	0.3
Expensing of Exploration and Development Costs					
Oil and gas	0.5	0.5	0.5	0.5	0.5
Other fuels	a	a	a	a	a
Nonfuel minerals	a	a	a	a	a
Credit for Investments in Solar and Geothermal Energy Facilities	a	a	a	a	a
Credit for Costs of Enhanced Oil Recovery	a	0.1	0.1	0.1	0.1
Expensing of Tertiary Injectants	a	a	a	a	a
Special Rules for Mining Reclamation Reserves	a	a	a	a	a

SOURCE: Data on spending and credit programs are from the Congressional Budget Office. Data on tax expenditures are from Joint Committee on Taxation, *Estimates of Federal Tax Expenditures for Fiscal Years 1995-1998*, prepared for the Committee on Ways and Means and the Committee on Finance (November 9, 1994).

a. Less than \$50 million.

b. The Congressional Budget Office estimates credit activity only for the current and the next fiscal year.

belong elsewhere as well. The utilities sector also receives support through credit programs—\$110 million of subsidies on \$1.1 billion in loans projected for 1995. On the tax side, the largest expenditure is for the tax preference given to industrial revenue bonds for sewage, water, and hazardous waste facilities, estimated to cost \$700 million in 1995.

Transportation

Credit and spending programs account for an estimated \$680 million in federal support for the transportation sector in 1995 (see Table 9). The two main sources of support are maritime operating differentials and aeronautical R&D conducted by the Na-

tional Aeronautics and Space Administration. CBO included all of NASA's aeronautical R&D in the 1984 study but only the portions most closely related to commercial technology in this study.

The largest source of support from tax expenditures is the industrial revenue bonds used to build private airports and other transportation facilities. One could argue for excluding this tax expenditure because it helps build infrastructure. Tax law, however, treats those bonds as private-activity bonds because a substantial portion of the benefits accrue to private parties rather than to the public, as do highways generally. Nevertheless, although this distinction is in the tax code, excluding this tax expenditure would not substantially alter the study's conclusions.

Table 8.
Targeted Federal Support for Utilities and Sanitary Services (In billions of current dollars)

	1995	1996	1997	1998	1999
Program Outlays					
Spending Programs	3.8	3.9	4.0	4.0	4.2
Credit Programs	0.1	0.1	0.1	0.2	0.1
Credit Activity					
Direct Loan Obligations	1.1	1.4	a	a	a
Loan Guarantee Commitments	b	b	a	a	a
Sector-Specific Tax Expenditures					
Exclusion of Interest on State and Local Government Bonds for Sewage, Water, and Hazardous Waste Facilities	0.7	0.7	0.7	0.7	0.7
Exclusion of Interest on State and Local Government Bonds for Energy Production Facilities	0.1	0.1	0.1	0.1	0.1
Exclusion of Energy Conservation Subsidies Provided by Public Utilities	b	0.1	0.2	0.3	0.3
Credit for Electricity Production from Wind and Biomass	b	b	b	0.1	0.1

SOURCE: Data on spending and credit programs are from the Congressional Budget Office. Data on tax expenditures are from Joint Committee on Taxation, *Estimates of Federal Tax Expenditures for Fiscal Years 1995-1999*, prepared for the Committee on Ways and Means and the Committee on Finance (November 9, 1994).

a. The Congressional Budget Office estimates credit activity only for the current and the next fiscal year.

b. Less than \$60 million.

Finance, Insurance, and Real Estate

The financial sector receives most of its federal support through tax benefits. The special allowances for life insurance companies' reserves, for example, will cost the federal government an estimated \$2.1 billion in 1995 (see Table 10). The financial sector also accounts for a large share of the multisector tax expenditures, such as the accelerated depreciation allowances. Although the financial sector benefits from the commerce and community development activities of the Community Development Block Grant program, the Small Business Administration, and the Economic Development Administration, which are discussed below, CBO did not allocate those benefits to it.

Trades and Services

The federal government provides little spending or credit support for the trades and services sector. Multisector tax benefits and community development programs account for most of its assistance.

Communications

Most federal costs on behalf of the communications sector are incurred in the form of tax expenditures, all of which are multisector. Most of the spending programs that support communications are multisector R&D and technology development programs, which CBO has allocated to the manufacturing sec-

Table 9.
Targeted Federal Support for Transportation (In billions of current dollars)

	1995	1996	1997	1998	1999
Program Outlays					
Spending Programs	0.6	0.6	0.6	0.5	0.5
Credit Programs	0.1	a	a	a	a
Credit Activity					
Direct Loan Obligations	a	a	b	b	b
Loan Guarantee Commitments	a	a	b	b	b
Sector-Specific Tax Expenditures					
Exclusion of Interest on State and Local Government Bonds for Private Airports, Docks, and Mass-Commuting Facilities	0.8	0.9	0.9	1.1	1.1
Deferral of Tax on Capital Construction Funds of Shipping Companies	0.1	0.1	0.1	0.1	0.1
Exclusion of Interest on State and Local Government Bonds for High-Speed Rail	a	a	a	a	a

Source: Congressional Budget Office. Data on tax expenditures are from Joint Expenditures for Fiscal Years 1995-1999, prepared for the Committee on Ways and Means, June 9, 1994.

ly only for the current and the next fiscal year.

tor. Programs of the National Institute of Standards and Technology and the High Performance Computing and Communications program, for example, also benefit communications services.

The only credit program designed to benefit the communications sector is the Rural Telephone Bank.

In 1995, the bank will provide an estimated \$175 million in loans. (The Rural Utilities Service also provides credit for telephone systems.) In addition, a large share of the Export-Import Bank's credits support the export of communications equipment and systems.

Table 10.
Targeted Federal Support for Finance, Insurance, and Real Estate (In billions of current dollars)

	1995	1996	1997	1998	1999
Program Outlays					
Spending Programs	a	a	a	a	a
Credit Programs	a	a	a	a	a
Credit Activity					
Direct Loan Obligations	a	a	b	b	b
Loan Guarantee Commitments	a	a	b	b	b
Sector-Specific Tax Expenditures					
Tax Credit for Low-Income Housing	2.2	2.6	2.9	3.4	3.7
Special Treatment of Life Insurance Companies' Reserves	2.1	2.3	2.5	2.7	2.9
Depreciation of Rental Housing in Excess of Alternative Depreciation System	1.7	1.6	1.5	1.3	1.2
Deduction of Unpaid Property Loss Reserves for Property and Casualty Insurance Companies	1.6	1.8	1.9	2.1	2.3
Exclusion of Interest on State and Local Government Bonds for Rental Housing	0.9	0.9	0.9	0.8	0.8
Exemption of Income of Credit Unions	0.7	0.7	0.7	0.8	0.8
Special Deduction for Blue Cross and Blue Shield Companies	0.3	0.3	0.1	0.1	0.1
Bad-Debt Reserves of Financial Institutions	0.1	0.1	0.1	0.1	0.1
Adjustment of Taxable Income of Small Life Insurance Companies	0.1	0.1	0.1	0.1	0.1
Exclusion of Investment Income from Structured Settlement Amounts	a	a	a	a	a
Special Alternative Tax on Small Property and Casualty Insurance Companies	a	a	a	a	a
Tax Exemption for Certain Insurance Companies	a	a	a	a	a

SOURCE: Data on spending and credit programs are from the Congressional Budget Office. Data on tax expenditures are from Joint Committee on Taxation, Estimates of Federal Tax Expenditures for Fiscal Years 1995-1998, prepared for the Committee on Ways and Means and the Committee on Finance (November 8, 1994).

a. Less than \$50 million.

b. The Congressional Budget Office estimates credit activity only for the current and the next fiscal year.

Construction and Other

The construction sector undoubtedly benefits from the economic development programs described in the next section. It also benefits from the efforts of Eximbank, which guarantees certain construction projects abroad. Investment credits for rehabilitating historic and other structures also encourage construction activities.

Unallocated Spending Programs

One category of programs has not been attributed to any specific sector: commerce and community development programs. The Small Business Administration, the Economic Development Administration, and the Community Development Block Grant program all assist local economic development. Because those programs help firms in all sectors, allocating them to any one sector would be extremely arbitrary. In addition, the economic development portion of those programs is often so small and the data on which to allocate programs so weak that dividing the programs among sectors based on historical patterns would be spuriously accurate. Furthermore, unlike tax expenditures, those programs are not entitlements with straightforward qualification rules that permit some allocation according to published data. Total outlays for the three programs are estimated to be \$1.8 billion in 1995.

Major Assumptions

One problem with using the Bureau of Economic Analysis's data for tax analysis is that its classification is performed on a firm, rather than an establishment, basis. A firm is a single legal entity that may have more than one place of business (or establishment). In a classification based on a firm, the firm's major activity defines its class even though it may operate establishments in a variety of unrelated activities; in a classification based on an establishment, each of the firm's separate operating units is classified according to its specific activity. Thus, the BEA data classify integrated oil firms as manufacturing firms because refining is classified as a manufacturing activity. Their exploration and production of oil and gas, though more properly classified as mining activities, are attributed to manufacturing.

Although some of the spending programs benefit only one industry, there is often no clear record of which firms, industries, or sectors take advantage of which provisions of the tax law. To allocate aggregate tax expenditures among industrial sectors, analysts must make assumptions about the types of firms that are likely to take advantage of a given provision and in what amount. The largest of the multisector tax expenditures are the provisions permitting the accelerated depreciation of assets. Many of the smaller tax expenditures also benefit more than one sector, but allocating them all would not serve any clear purpose.

- o *Asset depreciation.* CBO made the simplifying assumption that the preferences for asset depreciation would flow to sectors in proportion to their capital stocks and used the BEA series on fixed reproducible tangible wealth. Both the estimates of tax expenditures and the BEA series separate assets into equipment and structures. Revenue losses attributed to this aspect of the tax code arise because of the differences in tax liabilities under conventional tax depreciation and the Asset Depreciation Range System. CBO's assumptions about the allocation of tax expenditures implies that the difference is the same for all assets. If that implication is not true, the assumption may introduce biases. The estimates of asset depreciation used 1993 as the base year.

Tax Expenditures That Benefit More Than One Sector

As noted in Chapter 3, much of the federal support flows through tax expenditures that go to more than one sector. The largest of those expenditures is the accelerated depreciation allowance on buildings and equipment (the allowance on rental housing is assumed to promote the real estate sector). CBO has allocated those multisector tax expenditures among the major industrial sectors. The caveats presented in the discussion of targeted support are even more relevant to the allocation of multisector tax expenditures.

Table 11.
Illustrative Allocation of Multisector Tax Expenditures by Sector (In billions of dollars)

Sector	Depreciation of Buildings and Equipment in Excess of Alternative Depreciation System*	Reduced Rates on First \$10 Million of Corporate Taxable Income	Exception to Source Rule for the Sale of Inventory Property	Expensing of Research and Development Costs	Credit for Increasing Research Activities
Manufacturing	7.8	0.3	2.8	1.5	0.8
Trades and Services	7.5	2.2	0.2	0.3	0.3
Finance, Insurance, and Real Estate	6.2	0.5	0.3	*	*
Utilities and Sanitary Services	3.0	b	b	b	b
Communications	2.0	b	b	0.1	b
Transportation	1.7	0.1	b	*	*
Agriculture, Forestry, and Fisheries	1.1	0.1	b	*	*
Mining	0.7	b	0.1	*	*
Construction and Other	0.4	0.5	b	*	*
Total	30.5	3.9	3.5	2.0	1.1

SOURCE: Congressional Budget Office.

NOTE: * = not available.

- Depreciation of rental housing was allocated separately to the finance, insurance, and real estate sector (see Table 10).
- Less than \$50 million.

- Other assumptions.* Using data from the Internal Revenue Service, CBO allocated the loss attributable to the reduced rates on the first \$10 million of corporate taxable income by assuming that each sector's share was proportional to its share of profitable companies in the economy.¹ The IRS also publishes data on the possessions tax credits claimed by profitable firms. Tax expenditures related to foreign sales were allocated on the basis of the foreign tax credits claimed by the profitable firms in a sector. CBO used the National Science Foundation's data on industrial

R&D to allocate R&D-related tax expenditures among sectors.²

Several sectors receive many more benefits from multisector tax expenditures than from either targeted tax expenditures or spending and credit programs (see Table 11). As one would expect from the assumption, capital-intensive sectors such as manufacturing, utilities, and communications receive a disproportionate share of the accelerated depreciation allowances.

1. Data are from Internal Revenue Service, *Statistics of Income—1991: Corporate Income Tax Returns* (1994).

2. National Science Foundation, *Research and Development in Industry* (1991).

Manufacturing

The manufacturing sector receives a great deal more support from multisector tax expenditures than from other sources. CBO estimates that manufacturing will receive \$7.8 billion in accelerated depreciation allowances alone in 1995, counting depreciation of both buildings and equipment. By comparison, the sum of all its spending and credit outlays is \$8.2 billion. The manufacturing sector also receives most of the support provided by other multisector tax expenditures: manufacturing firms perform roughly three-quarters of the R&D conducted by private industry. Only in the case of the reduced rates on the first \$10 million of corporate taxable income is the manufacturing sector's share small, representing just 8 percent of the profitable firms in the United States.

Trades and Services

Because this sector comprises so many firms and accounts for such a large fraction of total investment, it receives a large share of the accelerated depreciation benefits—\$7.5 billion in 1995. This sector also is projected to receive much of the benefit from the reduced rates on the first \$10 million of corporate taxable income (\$2.2 billion).

Finance, Insurance, and Real Estate

The high level of investment in this sector ensures that it receives a substantial portion of the accelerated depreciation allowances—\$6.2 billion in 1995. Although it benefits disproportionately from depreciation allowances associated with structures—as would be expected from the real estate sector—generally it also does well with targeted tax support.³

Mining

The mining sector receives only a small fraction of the accelerated depreciation allowance. The assumptions outlined above, however, do not necessarily reflect the actual situation. As noted previously, much of the investment in the oil and gas industry is done through integrated oil companies, which are classified as manufacturing firms, not as mining companies.

Targeted Support in Its Industrial Context

Simply providing dollar figures for the federal support industries receive is of limited value unless one examines the industrial context in which that support takes place. To make the aggregate numbers more meaningful, they must be compared with some measure of the size of the sector. This study uses federal outlays (for spending and credit programs) or revenue losses (for tax preferences) relative to each sector's contribution to gross domestic product (GDP), or the sector's gross product. That comparison normalizes the estimates for each sector; it does not imply that federal support causes the output in the sector.

A sector's gross product attempts to measure the economic activity originating in a sector or industry.⁴ It equals the sector's output, minus purchased inputs and declines in inventory or work in progress. When added together, the gross product of all sectors, including government, equals gross domestic product. CBO used projections of nominal gross domestic product in January 1995 to make those measurements, then calculated each sector's share of GDP using its average share since 1990 as a weight. Although future shares may differ, such shifts are usually slow and gradual.

Comparing these estimates illustrates the level of support going to each sector; it is not an attempt to judge the relative impact of federal aid on the condi-

3. The assumptions used to allocate the tax benefits associated with depreciation of buildings other than rental housing overstate the benefits going to the real estate sector and understate those going to other sectors. Apartments are included in the net assets of the real estate sector, but the depreciation benefits according to investment in apartments are broken out separately. Thus, in some sense the assumptions permit the double-counting of apartments for the real estate sector. However, since the tax expenditures are not added together, that need not affect the study's major conclusions.

4. See Robert Yeskmage, "Gross Domestic Product by Industry, 1991-1992," *Survey of Current Business* (October 1994), p. 31.

tions of supply and demand in any industry. The relative impact is difficult to determine and is certainly not equal to the total level contained in this study. Furthermore, the mechanism for allocating the federal assistance among sectors is too crude to justify any detailed policy judgments.

These estimates consequently do not imply that reducing federal support would decrease output in the sector by any given amount. The federal government may play a large role in a given industry, but the industry would be dependent on this support only if no other actor was willing to provide the same financial capital as the federal government. Such an analysis for each industry would carry this study farther than its limited mission allows: it would be the first step in determining whether the federal aid in a given instance is appropriate. If the federal government is merely preempting private actors, then the aid may not be important to the industry.

Outlays from Spending and Credit Programs

Some industrial sectors clearly receive more support than others relative to their size (see Table 12). The agricultural sector receives support from spending and credit programs equal to almost 11 percent of its gross product, compared with less than 1 percent for the communications sector. Agriculture receives five times as much as the next largest sector—utilities and sanitary services—relative to its contribution to the economy. Federal support for the utilities and sanitary services sector equals 1.9 percent of its gross product. Although the manufacturing sector ranks second only to agriculture in the absolute level of support it receives, that support equals only 0.6 percent of its gross product.

Multisector Tax Expenditures

As noted above, the arithmetic sum of tax expenditures is not meaningful because their interactions are too complex. Consequently, this section cannot mirror the analysis of the spending and credit programs. However, the largest single tax expenditure—the accelerated depreciation of capital assets—can be

viewed relative to each sector's contribution to gross domestic product.

Although accelerated depreciation benefits are larger in the aggregate than the support from spending programs, they are so spread around the economy that no single sector receives more than a small fraction of the total. By contrast with the spending and credit support for agriculture, which equaled almost 11 percent of the gross product in that sector, the benefits from accelerated asset depreciation are no more than 1.5 percent of the gross product of any sector and in most cases are less than 1 percent (see Table 12). The primary beneficiaries are the utilities

Table 12.
Federal Business Support in an Industrial Context (As a percentage of each sector's share of gross domestic product in 1995)

Sector	Outlays from Spending and Credit Programs	Tax Expenditures from Accelerated Depreciation of Assets ^a
Agriculture, Forestry, and Fisheries	10.8	0.8
Utilities and Sanitary Services	1.9	1.5
Manufacturing	0.6	0.6
Transportation	0.3	0.8
Mining	0.2	0.7
Communications	b	1.1
Finance, Insurance, and Real Estate	b	0.5
Trades and Services	b	0.3
Construction and Other	b	0.1

SOURCE: Congressional Budget Office.

a. Includes buildings and equipment only; depreciation of rental housing was allocated separately to the finance, insurance, and real estate sector (see Table 10).

b. Less than 0.05 percent.

and communications sectors, which receive support equal to 1.5 percent and 1.1 percent of their gross product, respectively. Both sectors are capital-intensive, relatively small, and dominated by large firms.

Effects of Tax Support on Investment by Businesses

The tax system affects businesses in two ways. First, it favors individual proprietorships and other enterprises organized so as to qualify for treatment under the tax laws for individuals. (A discussion of the difference in the tax treatment of individuals and corporations, however, is beyond the bounds of this study.) Second, the tax system treats some investments more favorably than it treats others. Industries that invest more heavily in the favored assets receive more support from the tax system than industries that invest in assets that are not favored.⁵

One way of analyzing the effect of the tax expenditures on the recipient sectors is to observe the sectors' tax rates and see how they vary among sectors and over time. This approach differs from that of the previous section in several ways. The effective rate looks at industrial support from the recipient's point of view, not the budget's: it tells what something is worth to the recipient, not what it costs the government.

Economists use effective tax rates to measure how the tax system treats investments in different assets. The effective tax rate measures the difference between the before-tax and after-tax rates of return on an investment in an asset. That measure shows the system of incentives that the tax system is providing to investors. Everything else being equal, investments will flow disproportionately toward industries with lower effective tax rates.

In the Tax Reform Act of 1986, the Congress and the Administration made major changes in tax policy, including changes in effective tax rates. The central thrust of that law was to lower the nominal tax rates on both individuals and corporations and to eliminate or reduce many tax preferences. The reduction in tax preferences increased the income base to be taxed, which allowed nominal rates to be reduced while still raising the same level of revenue.

Before 1986, the difference in the tax treatment between categories of assets bought by corporations was substantial, which in turn caused wide variations in the tax treatment of corporations in different sectors. However, the tax treatment of broad categories of corporate assets has evened out substantially since then (see Table 13). Thus, tax reform, measured in these broad categories of assets, decreased the average marginal tax rate from 37 percent to 33 percent and treated most assets equally. It also narrowed the spread of the marginal tax rates among sectors (see Table 14).

The mining sector—most notably oil and gas mining—was favored by the tax system before reform, and oil and gas mining remain by far the most

Table 13.
Marginal Effective Corporate Tax Rates
by Type of Asset (In percent)

Type of Asset	Before Tax Reform	After Tax Reform ^a
Structures	54	41
Inventories	46	34
Equipment	43	30
Apartments	34	32
Land	8	30

SOURCE: Congressional Budget Office using data from Jane Gravelle, *The Economic Effects of Taxing Capital Income* (Cambridge: MIT Press, 1994), Table 3.1, p. 54.

a. Calculations do not reflect the increase in the maximum corporate tax rate in 1993 from 34 percent to 35 percent.

5. The discussion in this section is largely derived from Jane Gravelle, *The Economic Effects of Taxing Capital Income* (Cambridge: MIT Press, 1994).

favored industries. By contrast, manufacturing is still subject to unfavorable tax treatment, although tax reform has brought it much closer to the treatment other sectors receive.

Table 14.
Marginal Effective Corporate Tax Rates
by Sector (In percent)

Sector	Before Tax Reform	After Tax Reform ^a
Agriculture, Forestry, and Fisheries	52	44
Manufacturing	49	48
Trades and Services ^b	48	46
Finance, Insurance, and Real Estate ^c	47	40
Construction	38	44
Utilities and Sanitary Services ^d	37	40
Mining ^e	34	34
Transportation	34	41

SOURCE: Congressional Budget Office using data from Jane Gravelle, *The Economic Effects of Taxing Capital Income* (Cambridge: MIT Press, 1994), Table 3.3 and Table B.6.

NOTE: Calculations reflect the effects of both corporate and individual income taxes on corporate investment.

- a. Calculations do not reflect the increase in the maximum corporate tax rate in 1993 from 34 percent to 35 percent.
- b. The average of trades and services weighted by the capital stock in each subsector; calculated using data from Gravelle, Table B.6.
- c. Includes rental housing only. CBO assumes that Gravelle includes finance and insurance companies in the trades and services sector.
- d. Gravelle does not give a separate rate for the communications sector. Most analyses include communications with the utilities and sanitary services sector.
- e. The average of oil and gas mining and all other mining weighted by the capital stock in each subsector; calculated using data from Gravelle, Table B.6.

Technology Programs

During the 1990s, federal participation in the commercialization of new technologies has been the focus of much debate. According to CBO's tally, federal agencies will spend more than \$12 billion in 1995 on programs that purport to help the process of commercializing technology.

Traditional federal missions--agriculture, energy, and health-related R&D--account for almost three-quarters of all such funding. The development of energy technology and health-related R&D, at \$3.7 billion each, are the largest areas (see Table 15). By contrast, the development of dual-use technology by the Department of Defense is estimated to receive only \$1.8 billion. (As stated in Chapter 2, many of the dual-use technology programs are not new; only the explicit recognition by policymakers of the potential effects on commercial technology is new.)

Table 15.
Federal Outlays for Technology
Commercialization Programs in 1995 by
Budget Function (In billions of current dollars)

Budget Function	1995
National Defense (D60)	1.8
General Science, Space, and Technology (250) ^a	1.1
Energy (270)	3.7
Agriculture (350)	1.3
Commerce and Housing Credit (370)	0.6
Health (550)	3.7
Total	12.0

SOURCE: Congressional Budget Office.

a. Includes transportation.

Appendices

Estimated Tax Expenditures That Support Business

A tax expenditure is a loss of revenue arising from a provision of the tax code that extends selective income tax relief to particular taxpayers—in this case, businesses. The Congressional Budget Office identified more than 60 tax expenditures that benefit businesses, whether organized as corporations or individuals. Table A-1 lists them by budget function.

The estimates of the tax expenditures were prepared by the Joint Committee on Taxation. JCT made its estimates based on provisions in tax law enacted through December 31, 1993. Since no major changes in tax law affecting tax expenditures occurred during 1994, those estimates are still current. The estimators do not include proposed extensions or modifications of expiring provisions until they have been enacted into law.

Table A-1.
Estimated Tax Expenditures by Budget Function (In billions of current dollars)

	1995	1996	1997	1998	1999
International Affairs (150)					
Exception to the Source Rule for the Sale of Inventory Property	3.5	3.6	3.7	3.7	3.8
Exclusion of Income of Foreign Sales Corporations	1.4	1.5	1.5	1.5	1.6
Deferral of Income of Controlled Foreign Corporations	1.1	1.1	1.1	1.2	1.2
Exception to Interest Allocation for Certain Nonfinancial Institutions	0.2	0.2	0.2	0.2	0.2
General Science, Space, and Technology (250)					
Expensing of Research and Development Costs	2.0	2.1	2.1	2.2	2.3
Credit for Increasing Research Activities	1.1	0.7	0.3	0.1	0.1
Energy (270)					
Credit for Producing Nonconventional Fuels	1.1	1.2	1.2	1.2	1.2
Excess of Percentage over Cost Depletion					
Oil and gas	0.6	0.6	0.6	0.6	0.6
Other fuels	0.2	0.2	0.3	0.3	0.3
Expensing of Exploration and Development Costs					
Oil and gas	0.5	0.5	0.5	0.5	0.5
Other fuels	a	a	a	a	a
Exclusion of Interest on State and Local Government Bonds for Energy Production Facilities	0.1	0.1	0.1	0.1	0.1
Exclusion of Energy Conservation Subsidies Provided by Public Utilities					
Credit for Investments in Solar and Geothermal Energy Facilities	a	0.1	0.2	0.3	0.3
Credits for Electricity Production from Wind and Biomass	a	a	a	0.1	0.1
Credit for Costs of Enhanced Oil Recovery	a	a	a	a	a
Credit for Alcohol Fuels ^b	a	a	a	a	a
Expensing of Tertiary Injectants	a	a	a	a	a
Deductions and Credits for Clean-Fuel Vehicles and Refueling Property	a	a	a	a	a
Natural Resources and Environment (300)					
Exclusion of Interest on State and Local Government Bonds for Sewage, Water, and Hazardous Waste Facilities	0.7	0.7	0.7	0.7	0.7
Expensing of Multiperiod Costs of Growing Timber	0.4	0.4	0.5	0.6	0.6
Excess of Percentage over Cost Depletion for Nonfuel Minerals	0.2	0.2	0.3	0.3	0.3
Investment Tax Credit for Rehabilitation of Historic Structures	0.1	0.1	0.1	0.1	0.1
Investment Credit and Seven-Year Amortization for Costs of Reforestation	a	a	a	a	a
Expensing of Costs of Exploring and Developing Nonfuel Minerals	a	a	a	a	a
Special Rules for Mining Reclamation Reserves	a	a	a	a	a

(Continued)

Table A-1.
Continued

	1995	1996	1997	1998	1999
Agriculture (350)					
Cash Accounting for Agriculture	0.3	0.3	0.3	0.3	0.3
Exclusion of Cancellation of Farmers' Indebtedness Income	0.1	0.1	0.1	0.1	0.1
Expensing of Costs of Raising Dairy and Breeding Cattle	0.1	0.1	0.1	0.1	0.1
Exclusion of Certain Cost-Sharing Payments	a	a	a	a	a
Expensing of Costs of Soil and Water Conservation	a	a	a	a	a
Expensing of Costs of Fertilizing and Soil Conditioning	a	a	a	a	a
Commerce and Housing Credit (370)					
Depreciation of Equipment in Excess of Alternative Depreciation System	25.6	25.6	25.2	24.5	24.7
Depreciation of Buildings Other Than Rental Housing in Excess of Alternative Depreciation System	4.9	4.5	3.8	3.0	2.1
Reduced Rates on First \$10 Million of Corporate Taxable Income	3.9	4.1	4.3	4.5	4.7
Tax Credit for Low-Income Housing	2.2	2.6	2.9	3.4	3.7
Special Treatment of Life Insurance Companies' Reserves	2.1	2.3	2.5	2.7	2.9
Depreciation of Rental Housing in Excess of Alternative Depreciation System	1.7	1.6	1.5	1.3	1.2
Deduction of Unpaid Property Loss Reserves for Property and Casualty Insurance Companies	1.6	1.8	1.9	2.1	2.3
Expensing of up to \$17,500 of Depreciable Business Property	1.5	1.1	0.8	0.4	0.1
Exclusion of Interest on State and Local Government Bonds for Rental Housing	0.9	0.9	0.9	0.8	0.8
Deferral of Gain on Nondealer Installment Sales	0.7	0.7	0.7	0.9	0.9
Exemption of Income of Credit Unions	0.7	0.7	0.7	0.8	0.8
Deferral of Gain on Like-Kind Exchanges	0.6	0.8	0.8	0.8	1.0
Exclusion of Interest on State and Local Government Small-Issue Industrial Development Bonds	0.5	0.4	0.4	0.4	0.3
Exception from Limitations on Net Operating Losses for Corporations in Bankruptcy Proceedings	0.4	0.4	0.5	0.5	0.5
Special Deduction for Blue Cross and Blue Shield Companies	0.3	0.3	0.1	0.1	0.1
Amortization of Business Startup Costs	0.2	0.2	0.2	0.2	0.2
Completed Contract Rules	0.2	0.2	0.2	0.2	0.2
Permanent Exemption from Imputed Interest Rules	0.2	0.2	0.2	0.2	0.2
Adjustment of Taxable Income of Small Life Insurance Companies	0.1	0.1	0.1	0.1	0.1
Deferral of Gains from Sale of Broadcasting Facilities to Minority-Owned Businesses	0.1	0.1	0.1	0.1	0.1
Bad-Debt Reserves of Financial Institutions	0.1	0.1	0.1	0.1	0.1
Cash Accounting, Other Than Agriculture	a	a	a	a	a
Exclusion of Investment Income from Structured Settlement Amounts	a	a	a	a	a
Expensing of Costs of Magazine Circulation	a	a	a	a	a
Special Alternative Tax on Small Property and Casualty Insurance Companies	a	a	a	a	a

(Continued)

Table A-1.
Continued

	1995	1996	1997	1998	1999
Commerce and Housing Credit (370) (Continued)					
Special Rules for Returns of Magazines, Paperback Books, and Records	a	a	a	a	a
Tax Exemption for Certain Insurance Companies	a	a	a	a	a
Transportation (400)					
Deferral of Tax on Capital Construction Funds of Shipping Companies	0.1	0.1	0.1	0.1	0.1
Exclusion of Interest on State and Local Government Bonds for High-Speed Rail	a	a	a	a	a
Community and Regional Development (450)					
Exclusion of Interest on State and Local Government Bonds for Private Airports, Docks, and Mass-Commuting Facilities	0.8	0.9	0.9	1.1	1.1
Regional Economic Development Tax Incentives-- Empowerment Zones, Enterprise Communities, and Incentives for Indian Investments	0.3	0.4	0.5	0.6	0.6
Investment Credit for Rehabilitation of Structures, Other Than Historic Structures	a	a	a	a	a
Education, Training, Employment, and Social Services (500)					
Special Tax Provisions for Employee Stock Ownership Plans	0.9	1.0	1.1	1.2	1.2
General Government (800)					
Tax Credit for Corporations with Income from U.S. Possessions (Section 936 Income)	3.7	3.8	4.0	4.1	4.2

SOURCE: Congressional Budget Office based on Joint Committee on Taxation, *Estimates of Federal Tax Expenditures for Fiscal Years 1995-1999*, prepared for the Committee on Ways and Means and the Committee on Finance (November 9, 1994).

a. Less than \$50 million.

b. In addition, the 5.4 cents per-gallon exemption from excise tax for alcohol fuels reduces excise tax receipts, net of the effect of income taxes, by \$0.6 billion in 1995 and \$0.7 billion in 1996 through 1999.

Appendix B

Estimated Program Outlays That Support Business

The federal government supports business through a variety of spending programs that either award money directly to a business or industry or spend it on their behalf. Table B-1 lists these programs by budget function.

The estimates of the costs of the spending programs were prepared by the Budget Analysis Divi-

sion of the Congressional Budget Office. The estimates are from CBO's March 1995 baseline and include inflation; they do not reflect legislation passed in 1995. Most of the estimates are made at the budget account level. Estimates of program spending at the subaccount level are consistent with the CBO baseline for the account.

Table B-1.

Estimated Outlays for Spending Programs by Budget Function (In millions of current dollars)

Program	1995	1996	1997	1998	1999
National Defense (050)^a					
Technology Reinvestment Project	493	481	392	417	409
Manufacturing Technology	395	388	361	422	428
Computing Systems Technology	355	370	329	384	388
Materials and Electronics	268	235	208	265	289
Semiconductor Manufacturing	89	83	36	11	1
Defense Research Sciences	87	83	76	91	96
Other Dual-Use Initiatives	66	93	58	69	71
Advanced Simulation	45	18	9	7	2
General Science, Space, and Technology (250)					
<i>National Science Foundation</i>					
High Performance Computing and Communications	261	288	276	284	292
Design, Manufacturing, and Industrial Innovation	66	67	69	71	73
Engineering Research Centers	51	52	53	55	56
<i>National Aeronautics and Space Administration</i>					
Aeronautical Research and Development	341	352	364	376	388
Microgravity Sciences Research	130	134	138	143	148
Spacecraft and Remote Earth Application	124	128	132	137	141
High Performance Computing and Communications	75	78	80	82	85
Landsat	61	63	64	66	68
Technology Transfer	45	47	48	50	51
Centers for the Commercialization of Space	19	20	20	21	21
Space Processing	18	19	19	20	20
Energy (270)^b					
Energy Supply R&D	2,544	2,628	2,691	2,784	2,882
Fossil Energy R&D	432	446	460	477	493
Energy Conservation R&D	430	509	542	559	576
Clean Coal Technology	300	300	200	200	150
Uranium Supply and Enrichment Activities	102	86	67	60	72
Synthetic Fuels Corporation	41	35	20	0	0
Natural Resources and Environment (300)					
<i>Department of the Interior</i>					
Bureau of Reclamation					
Construction	494	434	444	461	479
Operations and maintenance	284	293	304	315	327
Bureau of Mines	159	158	163	169	176

(Continued)

Table B-1.
Continued

Program	1995	1996	1997	1998	1999
Natural Resources and Environment (300) (Continued)					
Department of Agriculture					
Conservation Reserve Program	1,858	1,848	1,922	1,575	1,367
Forest Service					
Forest research	198	206	215	223	232
State and private forestry	173	181	188	195	202
Natural Resources Conservation Service--					
Wetlands Reserve Program	47	88	183	116	86
Agriculture (350)^a					
Farm Service Agency					
Commodity Credit Corporation	7,944	8,494	8,396	8,268	8,056
Salaries and expenses	934	813	846	880	915
Federal Crop Insurance Corporation	643	1,530	1,535	1,445	1,392
Cooperative State Research, Education, and Extension Service	929	956	976	1,011	1,047
Agricultural Research Service	758	777	805	838	880
Animal and Plant Health Inspection Service	443	460	478	496	517
Foreign Agricultural Service and General Sales Manager	109	112	115	119	124
Agricultural Marketing Service	50	47	49	51	53
Grain Inspection, Packers, and Stockyard Administration	23	24	25	26	27
Commerce and Housing Credit (370)					
Department of Commerce					
National Institute of Standards and Technology					
Scientific and technical research and services					
and construction of research facilities	277	327	345	366	370
Industrial technology services	180	324	476	550	569
International Trade Administration--					
Operations and Administration	242	272	283	294	305
Minority Business Development Agency	42	44	46	48	50
Export Administration--Operations and Administration	38	39	44	45	47
United States Travel and Tourism Administration	17	17	18	18	19
Small Business Administration					
Salaries and Expenses	308	264	274	284	295
Transportation (400)^d					
Maritime Administration					
Operating-differential subsidies	211	167	128	46	11
Ocean freight differential	40	40	40	40	40
Office of the Secretary--Payments to Air Carriers	33	34	35	37	38
Federal Railroad Administration--Railroad					
Research and Development	25	25	24	24	24

(Continued)

Table B-1.

Continued

Program	1995	1996	1997	1998	1999
<i>Community and Regional Development (450)</i>					
<i>Department of Housing and Urban Development</i>					
Community Development Block Grants	510	562	587	608	629
Salaries and Expenses	28	38	35	36	38
<i>Department of Commerce, Economic Development Administration</i>					
Economic Development Assistance Programs	285	336	370	402	434
Salaries and Expenses	32	33	35	36	38
<i>Department of Agriculture</i>					
Rural Business and Cooperative Development Service--					
Salaries and Expenses	14	15	16	16	17
Rural Business Enterprise Grants	32	45	48	50	52
<i>Health (550)*</i>					
National Institutes of Health--					
Applied Biomedical Research	3,680	3,788	3,948	4,095	4,239

SOURCE: Congressional Budget Office.

NOTE: R&D = research and development.

- a. Department of Defense.
- b. Department of Energy.
- c. Department of Agriculture.
- d. Department of Transportation.
- e. Department of Health and Human Services.

Appendix C

Estimated Credit Activity and Outlays That Support Business

Federal agencies provide credit to business either by making loans directly to borrowers or by issuing guarantees that obligate the government to repay a private lender all or part of a loan if the borrower defaults. The cost of the government's credit activity is measured by the outlays for the subsidy and administrative costs of that activity. Table C-1 lists these credit programs by budget function.

The estimates of the costs of the credit programs were prepared by the Budget Analysis Division of the Congressional Budget Office. The estimates are from CBO's March 1995 baseline and include inflation; they do not reflect legislation passed in 1995.

Table C-1.

Estimated Obligations, Commitments, and Outlays for Credit Programs by Budget Function
(In millions of current dollars)

Program	1995	1996	1997	1998	1999
National Defense (050)					
Maritime Administration-Maritime (Title XI) Guaranteed Loans					
Loan guarantee commitments	1,658	920	a	a	a
Administration and subsidy outlays	70	27	3	3	4
International Affairs (150)					
Overseas Private Investment Corporation					
Direct loan obligations	86	81	a	a	a
Loan guarantee commitments	1,899	1,794	a	a	a
Administration and subsidy outlays	42	75	99	110	114
Export-Import Bank					
Direct loan obligations	4,567	4,380	a	a	a
Loan guarantee commitments	14,340	14,820	a	a	a
Administration and subsidy outlays	546	637	718	746	773
Energy (270)					
Rural Utilities Service					
Direct loan obligations	1,116	1,350	a	a	a
Administration and subsidy outlays	110	117	119	115	106
Agriculture (300)					
Agricultural Credit Insurance Fund					
Direct loan obligations	611	630	a	a	a
Loan guarantee commitments	1,354	1,399	a	a	a
Administration and subsidy outlays	393	407	423	438	456

(Continued)

Table C-1.
Continued

Program	1995	1996	1997	1998	1999
Agriculture (300) (Continued)					
Commodity Credit Corporation-Export Credit					
Loan guarantee commitments	3,759	4,250	4,250	4,250	4,250
Administration and subsidy outlays	369	349	350	350	350
Commerce and Housing Credit (370)					
Small Business Administration					
Direct loan obligations	704	204	a	a	a
Loan guarantee commitments	9,679	9,496	a	a	a
Administration and subsidy outlays	614	467	480	497	515
Community and Regional Development (450)					
Rural Telephone Bank					
Direct loan obligations	175	175	a	a	a
Administration and subsidy outlays	11	10	11	11	11
USDA Rural Business and Cooperative Development Service-- Rural Business and Industry Loans Program					
Loan guarantee commitments	505	800	a	a	a
Administration and subsidy outlays	17	18	20	21	22
USDA Rural Development Loan Fund					
Direct loan obligations	85	90	a	a	a
Administration and subsidy outlays	22	34	40	47	48

SOURCE: Congressional Budget Office.

NOTE: USDA = U.S. Department of Agriculture.

a. The Congressional Budget Office prepares estimates of most credit activity only for the current and the next fiscal year.